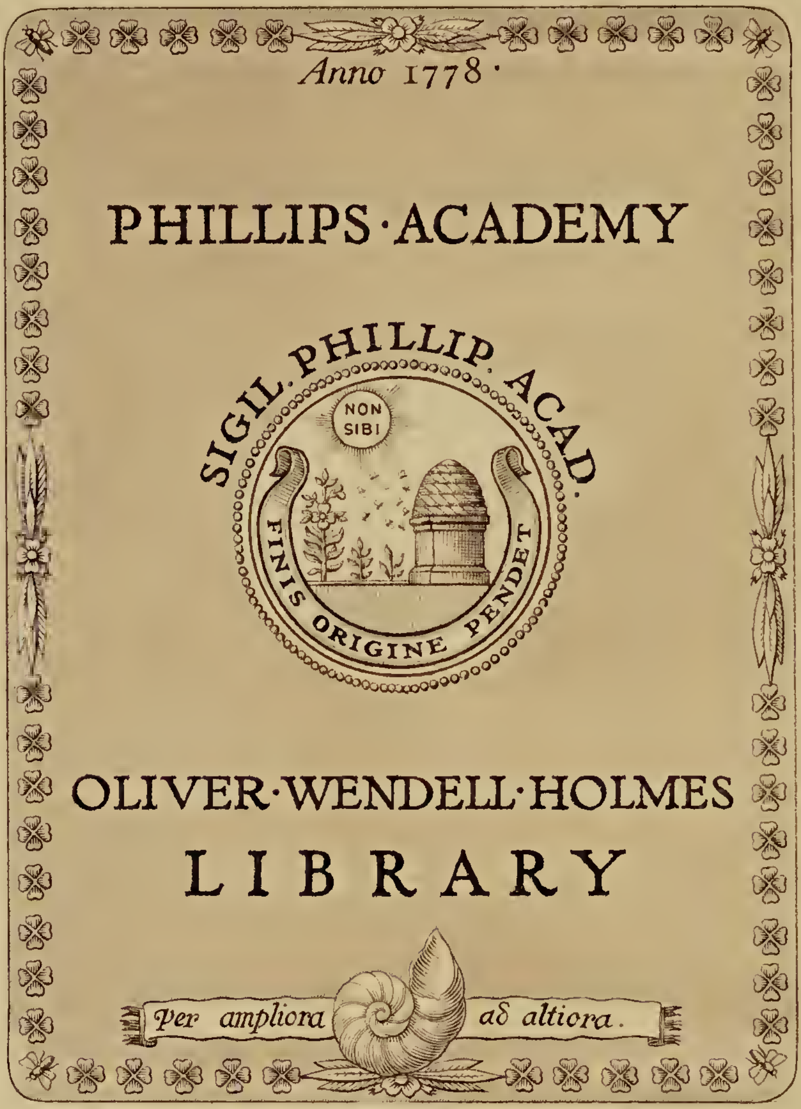

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A CONGRESSIONAL HISTORY OF RAILWAYS IN THE UNITED STATES TO 1850

BY

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PREFACE

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Upon the work of Mr. R. J. Usher in the Congressional documents partly depends the accuracy of the foot-note references and the exhaustiveness of the material.

Lewis H. Haney.

Iowa City, Ia.
February 18, 1908.

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INTRODUCTION

Without attempting to define the railway problem, it may be broadly stated that this problem is a social one: whether it be regarded as one of relatively reasonable rates or of absolutely reasonable rates, the welfare and best development of society are the end and solution of the matter. The truth of this somewhat sweeping generalization no one will deny, yet it is too often forgotten, and the end lost in a jumble of means. To remedy this condition and throw a broader light upon the transportation question, there is much need that the matter be placed in its proper historical setting, and that is the aim of a study like the present.

It follows from the fact that the question is a social one that it is also political. While relations existing between transportation agencies and what, by way of analogy, is called the social organism are more fundamental, they involve relations to the political institutions through which that organism acts; and so, though we are finally interested in the connection between railways and you or me, we are immediately concerned with their connection with our government. But this connection is not a fixed, permanent relationship. It has its history; it has grown and changed in the past; it will grow and change in the future. In a word, the railway problem is relative, and not the least helpful phase of a congressional history of railways is that which emphasises this relativity.

The transportation system of the United States is an evolution: from the trail to the railway track there has been a certain continuity in change. The railway passed and partly superseded the highway, the canal, and the river as a means of transportation, these falling into subordinate places in the nation's aggregate of facilities for conveyance and communication. Naturally men met the railway in the light of experience and many ideas concerning its nature and operation were crude and erroneous. To understand aright the reception of the railway and its early history, in Congress and out, it is necessary to know men's ideas on railway technics and their reasons for those ideas. In brief, to write a good history of railways one could not begin with the railway, for it was and is but a part in a complex of transportation agencies.

The period covered extends from the earliest mention of railways in Congress down to 1850, a date which, as Hadley says, ended the years of railway infancy.[1] This period in its turn may be divided at the year 1830, when steam was adopted as the motive power in this country,—the years prior to that date being ones of plans, prophecies, and origins; those succeeding it forming a period of infancy, growth, and perfection. For several reasons the greater period has such unity and definiteness that a volume has been devoted to it and strictly confined within its limits.

In the first place, by about 1850 there had come a truer conception of the nature and functions of railways. Again, this truer conception was itself largely due to the technical progress and railway extension of the time. The close of the half century saw the railway net fast extending toward the Mississippi river. It was an epoch of rapid railway construction and the beginning of consolidation. Connected with this condition, partly as cause and partly as effect, was the beginning of the system of huge land donations which the year 1850 marked. Then there was the discovery of gold in 1848 which was a powerful factor in opening the West and stimulating industry; it encouraged projects for a railway to the Pacific and brought up questions of government ownership. Finally, it was at this time that the states, beginning with New York, began to pass general laws of incorporation. This was brought to pass partly no doubt by the spread of *laissez faire* doctrines and partly by the prevalence of lobbying and corruption, the growth of which state of affairs occurred during our period. Then, too, the national government illustrates the same tendency by passing a general law providing for rights of way to railways at about this time. These general laws indicate the multiplication of railways which came about 1850.

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[1] *Railroad Transportation*, p. 12.

As sources for a congressional history it is natural to turn to the published proceedings of Congress, and the House and Senate *Journals, Debates of Congress, Congressional Globe,* and the reports to Congress form the great source for the present history. Locked up in the piles of calf-bound *Reports of Committees, Executive Documents,* and the like, there is a vast amount of material dealing with railways, and one object has been simply to exploit this material in a systematic way. Our attitude has been to a great extent passive—following where this material leads, not attempting to force it into the mould of preconceived notions.

The title, *A Congressional History of Railways in the United States,* suggests the two-fold character of the work. On the one hand, there is the railway, and much interesting and valuable matter concerning early railways, their structure and development, has been found in the documents. Here, as elsewhere, the chief attention has been given to this material with the idea of tracing those forces which directly actuated congressmen on the transportation question; but other sources, as contemporary books and newspapers, have been used. On the other hand, there is Congress. Perhaps it is hardly worth while to distinguish the history of the railway in Congress from that of Congress and the railway, but it is the latter aspect which emphasises the political and legislative side. By reason of this aspect the study necessarily takes on considerable breadth, embracing the great social and economic issues of the time. Thus land policies, internal improvements, the tariff, and the slavery question are all involved—and very directly involved, too—and further complication results from the fact that varied economic interests give rise to sections which take sides on these questions. South Carolina, for instance, wants neither federal internal improvements nor a protective tariff; what then will be her attitude toward a proposal to aid railways by remitting duties on imports of railway iron? Will she favor a step toward free trade at the expense of an extension of the activity of Congress?

The material for the solution of such questions clearly has considerable value for the student of United States history, and it is believed that some light is thrown upon them, if not in the line of new results, yet by way of clarifying and confirming such conclusions as have already been drawn.

It will be observed that all the relations existing between society, through government, and railways may be summed up under the two heads: aid and regulation. The granting of aid, it is believed, tends to regulation; whether regulation tends to cause grants of aid is a question the answer to which our material does not make clear. Throughout the period to be discussed there was a legitimate demand for more railways in most parts of the country. This demand, as distinguished from that of the present day, was for more railways rather than better ones—it was quantitative rather than qualitative. The existence of such a demand was a strong incentive to government aid, and it was especially strong as an effective political issue in times prior to 1830 and again from 1845 on, those times being fraught with fear as to the ability of the Union to hold together an expanding country. But, aid being granted, did Congress make stipulations in the way of regulating the rates or service of the railways benefited? This is a question of fact to be answered only by a careful study of the congressional history of railways.

BOOK I

RISE OF THE RAILWAY QUESTION

A CONGRESSIONAL HISTORY OF RAILWAYS IN THE UNITED STATES TO 1850

CHAPTER I

THE RAILWAY ENTERS CONGRESS: PLANS AND PROJECTS

The Beginning of the Movement for Railroads*

Within the first three decades of the nineteenth century, the modern system of steam railway transportation was born. It did not come full-fledged, however, nor was it without forerunners. In England, as early as the sixteenth century, ways were fitted with flagstones in order to lessen friction. Later strips of wood were used; these in turn were reinforced with strips of iron, till in 1776 a tramway of iron rails was constructed. During the eighteenth century there were experiments with steam locomotion in France and in England. But, roughly speaking, only after 1800 were economic conditions ripe for the change, and then the genius of Stephenson appeared. There were numerous experiments with steam traction, on railways and common roads, and men like Cugnot, Murdoch, Trevithick, and Blankensop are worthy of note. In 1813, it was discovered by Blacket that the adhesion of wheels to smooth rails was sufficient for locomotion. Nine years later the tramway from Hetton colliery, where Stephenson worked, was equipped with a locomotive. In 1825, on the Stockton and Darlington railroad, steam locomotion for commercial purposes began, and in 1830 the historic Liverpool and Manchester railroad was opened.

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* The author is indebted to the Division of Transportation of the Carnegie Institution for a grant which has made the prosecution of this work possible.

Now, not only the men of science and engineers, but the great mass of the English people were stirred and interested in these experiments and achievements. What, then, could be more likely than the dissemination of this interest? The seed was with England, but it soon fell upon American ground.

This ground was well prepared. In the first place, the big idealism of Americans was already developed. The great West, with its swelling population, was the background, and the acquisition of Louisiana and the expedition of Lewis and Clark gave large vistas to people and statesmen. Again, and more directly, the need of unity and tangible bonds among the states was keenly appreciated. To this end, comprehensive schemes of internal improvement were very early proposed. Washington saw the importance of artificial highways to the Northwest Territory.[1] As early as 1796, Zane was assisted by a congressional appropriation in opening a road in Ohio.[2] In 1802 and 1803 funds were granted the state of Ohio for roads.[3] Under Jefferson a national system of internal improvements was begun in the Cumberland Road (1806); and in 1808, Gallatin made his famous report. Ten years later the Erie canal was begun.

Thus, not only was the ground well prepared for large schemes for improving transportation, but the government, state and national, was already trained in its part of assisting such enterprises; and it is not strange that among the earliest mentions of railways in this country are those that are found in congressional documents.

LATROBE'S REPORT

In the *American State Papers*[4] there appears a communication made to Gallatin by Benjamin H. Latrobe, in 1808, and included in the former's report upon internal improvements just mentioned. This is the first document relative to railways that appears in the records of Congress. The unique position in time of this report warrants a full discussion of its contents.

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[1] Poor's *Manual*, 1868-69, p. 11.

[2] See below, p. 328.

[3] *Laws*, II: 175, 226.

[4] XX: *Misc.* I, 916.

"In the question proposed to me by you," says Latrobe, "the subject of artifical roads was comprehended; but being informed by you that the canal companies of Pennsylvania and Maryland had transmitted to you ample accounts of their undertakings, and as in their works, experience has taught a system and mode of execution of the most perfect kind, I have refrained from adding anything to the information thus required. It has, however, occurred to me that a few remarks on railroads might not be unacceptable to you, especially as the public attention has often been called to this sort of improvement, and the public mind filled with very imperfect conceptions of its utility." These misconceptions on the part of the public, he states, were based on reports of enormous loads drawn by a single horse on railways in England, and consisted in supposing that such a system might soon be generally adopted in this country. For two reasons this supposition seemed vain: on a railroad only carriages expressly constructed for that purpose could be used, and in order to lower cost of transportation sufficiently to justify the construction of railroads, a density and concentration of traffic was necessary that must be lacking in the United States. "The sort of produce which is carried to our markets is collected from such scattered points, and comes by such a diversity of routes, that railroads are out of the question as to the carriage of common articles."

Three exceptions, however, were allowed to this general inexpediency: railroads might pay expenses in connection with coal mines and granite quarries; they might be used as a temporary expedient in overcoming difficult parts of artificial navigation; and they might make possible long lines of communication otherwise impracticable.

The report contains a full description of the form of railway best adapted to this country.[5]

Thus there are several points of significance in this document.

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[5] See below, p. 195.

In the first place, it appears that the public mind was considerably exercised over the subject of railroads and their utility. As is implied at the beginning of this chapter, the agitation for railways did not begin about 1830, but at least twenty years earlier.

In the second place, in the report there are brought out some ideas of economic interest. No mention is made of steam, the horse being the only means of locomotion referred to. Clear expression is given to the principle according to which density of traffic is so desirable, but no account is taken of the possibility of developing that density of traffic,—a possibility soon to be so liberally discounted in this country.

It is interesting to note that the exception concerning coal mines and quarries was soon justified, among the first railways in the United States [6] being that laid from a granite quarry in Quincy, Mass. (1826),[7] and another from the coal mines at Mauch Chunk, Pa. (1827).[8]

Oliver Evans—His Open Letter to Congress

It is a coincidence that the next distinct factor in the development of transportation in the United States which affected Congress directly had some connection with Latrobe. During the year 1800,[9] an American inventor, by name Oliver Evans, in seeking support for his schemes, approached Mr. Latrobe, and communicated to him the plan of a steam engine which he proposed, among other ends, to use for propelling carriages and steamboats. Latrobe pronounced the idea ''chimerical'' and absurd, saying that Evans ''was one of the persons . . . seized with the *steam mania*, conceiving that wagons and boats could be propelled by steam engines.'' This is in keeping with the point just noted, that Latrobe did not consider steam in his report to Gallatin, and it illustrates the attitude of the great majority at this time.

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[6] It seems that the earliest railroad or tramway in the U. S. was in Boston in the year 1807. In 1809 Thos. Lieper, of Delaware county, Pa., constructed one from his quarry. These were very short and the rails were of wood. (See Ringwalt, *Development of Systems of Transportation in the U. S.*, p. 69.) These are railways in the generic sense of the term only.

[7] Brown, W. H., *Hist. of First Locomotive in America.*

[8] *Ibid.*

[9] This date is not certain. See *Niles' Register*, III, Addenda.

Evans, however, was an exception. As early as 1772 (or 1773)[10] when he was apprentice to a wagon-maker, he became filled with the idea of propelling wagons by other than animal power and soon turned to steam. In 1786 he petitioned the legislature of Pennsylvania for exclusive right to use his improvements in flour-mills, ''as also steam wagons.'' His petition was granted as to the mill machinery, but no notice was taken of his transportation ideas. On presenting the same petition to the Maryland state legislature, and explaining ''the elastic power of steam,'' together with his mode of applying it to wagons, it was granted on the ground that it would do no harm!

From this time on, Evans tried continually to interest others, but found few who could understand, and ''no one willing to risque the expense of the experiment.'' His encounter with Latrobe was typical.

In 1804 he actually propelled by steam a scow mounted on crude wheels,[11] and a year later published a book describing his steam engine and giving directions for applying it to boats, and ''carriages on turnpike roads.'' He obtained a patent for his mill improvements in 1808, and much litigation resulted from his attempt to maintain his rights.

Of greater importance as a direct influence upon Congress, however, was an open letter which Evans addressed ''To Members of Congress'' in 1816, through the columns of the *National Intelligencer*.[12] In this article he recounts his services and his trials, and concludes by asking each member to put certain questions to himself, one being: ''What will the annual amount of the benefit be, when my Columbian engines shall be applied to work many thousands of mills, manufactories, *carriages on railway or smooth roads,* boats on the great

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[10] He gives both dates: *Niles' Register*, III, Addenda, and X, 213.

[11] By order of the Phila. Board of Health, he constructed a sort of dredge for "cleaning docks." The machine being in a flat or scow, he added wheels, the axle-trees being merely of wood, and propelled the whole to the Schuylkill river, which he navigated by means of a paddle wheel.

[12] See *Niles' Register*, X, 213.

Atlantic and western waters, raising the value of western lands 50 per cent—by lessening the time of going to market * * *; can any one calculate within one million of dollars?''

Thus, though Oliver Evans came directly before Congress with no distinct petition for railroads, and though Congress took no action on that subject at this time, his schemes and inventions together with the agitation and litigation which attended them, must be reckoned as an important factor in moulding the minds of the public and of Congress.

It may be said that Evans was a prophet of steam. A study of the newspapers of the day shows that between 1810 and 1820 speculations and inventions concerning steam became numerous. The steamboat was developed and was the wonder of the period. Evans represented—to some extent, led—this movement, and was prominent in directing attention to its application to land transportation.

Dearborn's Petition

Between the years 1809 and 1819 the subject of railways does not appear to have been discussed in Congress. The period, however, was one of many projects for improving internal communication and transportation. Even in 1814, in the midst of the War of 1812, there were numerous road bills before Congress, and a proposition was introduced to take up a national system of internal improvements along Gallatin's lines.[13] In his message of 1816, Madison urged that measures be taken to bind ''more closely together every part of our country, by promoting intercourse and improvements.''[14]

The subject of railways next attracted the attention of Congress in the shape of a petition for assistance in carrying on an experiment.[15] In 1819, Mr. Mason (Mass.) presented the prayer of one, Benjamin Dearborn, stating that he had invented a mode of propelling wheel carriages by steam. Dearborn asked that an experiment be made to try the utility of his invention, and based his request on the ground that it was well calculated for the conveyance of the mails and any number of passengers, and that it would be perfectly secure from robberies on the highway.

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[13] See *House Journal, 1814*, under *Roads* and *Internal Improvements*.

[14] *H. J., 1816-17*, p. 14.

[15] *H. J., 1818-19*, Feb. 12.

The petition was referred to the committee on commerce and manufactures, and no further action was taken.

ROGERS' MARINE RAILWAY

Commodore Rogers' "Marine Railway" is of little direct interest, as it was to be but a short inclined plane, limited in its use to launching ships or hauling them out of water for repairs; but it should be mentioned, inasmuch as it was a "railway." Its operation was as follows:[16] two walls extending into deep water were built parallel to one another, and "on these walls or tiers of piles, two platforms or railways" were erected. "These ways," Rogers said, "may, and for very heavy vessels ought to be plated with iron or other metallic substance. * * * Steam or horse power may be used." Rogers, we are told, demonstrated the success of his scheme by hauling up the frigate Potomac before a great concourse of people, and President Monroe, who witnessed the feat, recommended it to Congress for an appropriation.[17]

Thus the idea of the railway,—of an iron-covered "way" upon which heavy objects might be transported with little friction, and of the application of steam to transportation on such a way,—was brought before Congress.[18]

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[16] *State Papers, 1822–23, Naval Affairs,* I, No. 226.

[17] Jan. 27, 1823, *H. J., 1822–23,* p. 171. The matter was referred to the committee on naval affairs, which reported favorably, and recommended $50,000 appropriation. The matter was ordered committed to committee of the whole house on state of the Union, and nothing was done (*H. J., 1822–23,* p. 216). *Niles' Register,* XXIX, 181, contains the following item: "A ship rail-way, for the repair of vessels, is constructing in New York. * * * On the Thomas' principal of the ship rail-way, it is probable there will be no difficulty * * * in hauling out for repairs the largest ship for the navy. Dry docks are scarce and this will make a complete substitute." (1825)

[18] The marine railway came up in Congress again in 1829–30: *State Papers, Naval Affairs,* III, No. 422; IV, No. 589.

JOHN STEVENS; GOVERNMENT EXPERIMENTS PROPOSED

Down to 1825 Congress did not play an active part in regard to railways. There was some discussion and agitation among the people, but it led to no experiment or assistance by the government; and Latrobe's report, Oliver Evans' letter, Dearborn's petition, and the discussion of Rogers' scheme were stimuli attended by no direct results. At the end of the first quarter of the nineteenth century, however, Congress took up the question,—for it was a question,—with more active interest, and a number of projects for experiments and actual construction by the general government indicate this change.

The origin of the new attitude may be ascribed in general to the rapid development of railways in England and the successful application of steam to transportation upon them. In this connection, too, the effect that the extended and improved use of steamboats must have had in preparing men's minds for considering the application of the same power to land transportation should not be overlooked.[19] But the particular and immediate cause lay in the activity of Colonel John Stevens of Hoboken; and in order to fully understand this, it will be necessary to step back into the previous century.

John Stevens was born in New York City in 1749, and served as Colonel in the Revolutionary War. The event in his life that directly affects this history occurred in 1787, when, during a drive along the Hudson river, he saw Fitch's crude steamboat. He became interested in the subject, invented a marine engine, a multi-tubular boiler, and used the first double-acting condensing engine made in America. About the year 1812 he turned his attention to railways, and addressed a memorial[20] to the board of commissioners of the Erie canal, advocating a double-track railway in place of the canal; but his plan was rejected as not feasible. His plan was for a raised wooden railway; it contemplated steam traction, and both passengers and freight were to be transported at a greatly reduced cost at a speed of twenty to thirty miles an hour.

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[19] A writer in 1820 appealed to the U. S. Government to build a national highway to the West, and calculated on steamboats, "and on the application of the same moving power to carriages upon rail roads * * * ." Mills, Robt. *A Treatise on Inland Navigation* (Balt., 1820), p. 59.

[20] See *Documents tending to prove the superior advantages of railways and steam-carriages over canal navigation.* (N. Y., 1812, and a reprint, 1852.)

In 1815, Stevens obtained a charter from New York for a steam railway from the Delaware to the Raritan, the first railroad charter granted in America; and in 1824 Pennsylvania gave him a charter for a railway from Philadelphia to Lancaster; but neither project was carried out,[21] for though he made every effort, capitalists could not be induced to take them up. In October of the latter year, however, he was given a patent by the government for the construction of railways,[22] and in the *Journal* of the House of Representatives for January 17, 1825, there appears the following notice: "Resolved, That the Committee on Roads and Canals be directed to inquire into the expediency of causing an experiment to be made at the seat of government, on a small scale, of the most improved mode of constructing roads, on the plan practiced under the direction of Mr. M'Adam, in England, *and of Railways, under the patent granted to John Stephens*[23] of Hoboken, in New Jersey."

In February the committee reported itself of the opinion that it would result to the benefit of the public "to make experiments in this District of a railroad and of a road constructed on M'Adam's plan, for short distances, and in places where they would be useful as well as for inspection."[24] No record is found of such an experiment, however, and no action appears to have been taken upon the report.

Yet this case is of great interest and significance as a beginning. For one thing, it throws light on the origin of railways in this country. From seeing steam at work on the water, Stevens was led to study it and finally to conceive a definite plan for railway construction. As early as 1812, he published the correspondence between himself and the canal commissioners, and brought his plan of construction and statement of the advantages of a steam railway over canals before the public. In 1824, he patented his plan, and in 1825 Congress was induced to inquire into the expediency of an experiment with it. Again, it should be noted that macadamized roads and railroads were considered on the same footing. Moreover, Congress took a highly paternalistic attitude in seriously considering the construction of a railway for "the benefit of the public." A further tendency in this direction came to light in the following year, when there was introduced in the House a resolution to the effect that the committee on roads and canals inquire into the expediency of making "a Railroad at the expense of the Federal Government."[25]

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[21] The charter was repealed in 1826.

[22] *State Papers, 1824-25*, II, 28.

[23] The name is so spelled in the text, though the index gives it correctly.

[24] *Appendix, 18th Cong., 2d sess.*, I, 77, (Feb. 6, 1825).

In December of this same year (1825), the aroused interest of Congress in railways was again apparent. It was resolved that there be an inquiry "into the utility of Railways, as a mode of conveyance for the mail in carriages, and as a means of transportation for heavy articles; and * * * the comparative cost of constructing railways and canals, and the relative advantages of the two modes of conveyance when formed * * * ."[26] The resolution brought no direct result, and no report was made.

Thus the year 1825 is clearly marked in the congressional history of railways as the beginning of an active interest on the part of the government.

STRICKLAND'S REPORT TO THE PENNSYLVANIA SOCIETY FOR THE PROMOTION OF INTERNAL IMPROVEMENTS

A further indication of this growing interest was shown in 1826. The House of Representatives then agreed to a resolution[27] for the purchase of twenty-five copies of a report on internal improvements, which report came to be prepared in the following way: in 1824 a society was organized in Philadelphia for the promotion of internal improvement, to which end they published information concerning canals, roads, and railways, and otherwise agitated the subject. In January, 1825, this body resolved to send an engineer to England to collect information concerning these matters, and for this work William Strickland, architect and engineer, was chosen. In 1826 the results of his investigations were printed by subscription. In the list of subscribers' names appears this item: "House of Representatives of the United States, 25 copies." In the report some ten pages were devoted to railways,—construction of road-bed, rails, locomotives, and car-wheels being minutely treated, and suggestions for adaptations to conditions in the United States made.[28] Strickland came to the conclusion that locomotives might be employed on railways that were nearly level; otherwise inclined planes with stationary engines would be necessary. On the whole, he would seem to favor railways.[29] His report will be referred to in the section on structure and utility.

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[25] *H. J. 1825–26.* Jan. 5, 1826. Resolution not agreed to.

[26] *H. J.*, *1825–26*, Dec. 15, 1825.

[27] *Ibid.*, p. 361.

The First Railway Companies; the South Carolina Railroad

The five years which followed were years of rapid progress in the railway world. In England steam was successfully applied to the transportation of passengers on the Stockton & Darlington railroad, and by 1830 the Liverpool & Manchester railroad, begun in 1826, was in operation. In 1827 Stephenson established works for manufacturing locomotives, and in 1829 three English engines were imported into America. Nor was this country backward. In 1826 John Stevens demonstrated the feasibility of steam locomotion on a small experimental scale. In the same year a short railway was used to transport stone for the Bunker Hill Monument in Boston, Mass., and in 1827 at Mauch Chunk, Pa., coal was transported nine miles from the mine to water over a railway operated by gravity and mules.

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[28] Strickland, William. *Reports on Canals, railways, roads, and other subjects.* (Phila., 1826.)

[29] Since writing the above, the writer has found the following reference. In the *Proceedings of the American Philosophical Society* for 1854 (Vol. 30) appears an obituary read by Judge Kane before that Society—of which Strickland had been a member. Of Strickland's report he says: "He had witnessed the great experiment of the first locomotives * * * on the Liverpool and Manchester Railroad; and in closing his report upon this performance, he prophesied that railroads were destined to supersede canals; and when I was about to remit this passage to the printer, the Society's committee, and I think the Society itself, remonstrated strenuously against so perilous a committal on the part of a gentleman, whose opinions might be corresponded with their own. In the end, I rewrote the closing paragraph of the report at their instance, and so saved Strickland from declaring in advance what a large part of the world knows now to be true."

The year 1827, however, is marked by more important events than the completion of this short and crude coal railway, for it was in this year that the first railways for general commercial purposes and for passengers were chartered,—the Baltimore & Ohio Railroad Company and the South Carolina Canal & Railroad Company. The Baltimore & Ohio Railroad Company was chartered by Maryland in April, 1827, and in the same month applied to Congress for assistance in surveying its route. This is the first case in which a railway company ever approached the Congress of the United States for aid; and, indeed, is the first appearance of a railway company in Congress. The early history of the Baltimore & Ohio will be treated at greater length in the following chapters.

The South Carolina Canal & Railroad Company is of more direct interest in this chapter of our Congressional history, inasmuch as a full report of its structure and purpose was laid before Congress. The proposed railway extended from Charleston to Hamburg, a distance of about one hundred and thirty-six miles.[30] It was the first railway in the United States planned for steam power, and upon it was run the first practical locomotive constructed in this country (1830). Work upon the road was begun in 1829, and it was in August, 1828, that the railway company applied for the assistance of goverment surveyors.[31]

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[30] It was completed in 1834, and was for a short time the longest railroad under a single management in the world. Hamburg is on the Savannah river opposite to Augusta, Ga.

[31] *State Documents*, 1828-29, I, No. 1, p. 47.

On August 27, 1829, a United States civil engineer, detailed to this duty, made a report to the president and directors of the South Carolina Canal & Railroad Company concerning the Charleston & Hamburg railroad, which was in turn reported by the secretary of war to President Jackson, who submitted it to Congress.[32] The substance of this report follows.

The topography of the region to be traversed was described as eminently suited to the work, from the level character of the land. The use of wood was advocated in the construction of the road, the rails to be of yellow pine and to rest upon sills of lightwood[33] or live-oak. These sills were to be eight feet apart, and the rails to measure at least six by nine inches, the rail and sill being let into each other sufficiently to secure them in their places and made fast by a locust or live-oak key. In place of embankments, it was proposed to raise the road on posts or piles. When it became necessary to replace the road, sills of stone might be used, to which the wooden rails would be fastened by iron chains; or, if a still more durable track were desired, the rails might be covered with plates of iron, as used in Massachusetts, or by "rails entirely of iron, according to the English plan."

The report also stated that it would be unwise not to make the road adaptable to both horse power and steam locomotives, and, as has been already stated, this was the first road in the United States built with the idea of using the locomotive engine. It was suggested that the weight of locomotives be reduced as much as possible, and that a premium be awarded for the "best model of a locomotive engine, combining lightness and power, and adapted to the use of light wood." The laying of a single track was advised, on the ground that the traffic did not warrant a double track.

In conclusion, the military advantages of the railway were pointed out.

The plan set forth in this report was followed, except that the rails were covered with flat iron bars from the outset, and it should be observed that it was essentially identical with the construction proposed by John Stevens in 1812, who would have raised his track above the ground in order to protect it from snow and dust. Both plans adopted wooden rails, although contemplating the possible necessity for iron, and both were designed for steam power.

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[32] *State Papers, 1829-30,* I, No. 7, p. 26.

[33] Lightwood is a pine wood abounding in pitch, found in the South.

CHAPTER II

THE RAILWAY ENTERS CONGRESS: EARLY IDEAS AS TO STRUCTURE AND UTILITY

"A railroad," wrote Latrobe in 1808, "consists of two pairs of parallel ways, one pair for going and the other for returning carriages."[1] Among the documents submitted to Congress in 1832 was a report of the New York railway commissioners which gravely propounds that "the principle on which the railway operates * * * differs essentially from that of a canal. In the latter, the body to be moved is sustained by the greater gravity of the fluid on which it is placed. * * * In the former, the weight to be transported is sustained on rollers or wheels, and is made to move * * * along the hard and even surface of planes, either level or partially inclined."[2]

Little more need be written to indicate that the railway was in its infancy.

(a) *Track.*

Of the various parts that go to make up a modern railway system, the way or track first came to the attention of Congress. Latrobe described the construction deemed suitable to this country in 1808. The rails were to be of cast iron from three to six feet long, five-eighths of an inch thick, and fifty-six pounds in weight, i. e., twenty-eight pounds per yard. The cross section of this rail would have been in the shape of the letter L, a two-inch "flanch" or projection on the outside serving to keep the wheels upon the track. The ends of the rails were to be fastened to cross-pieces of wood, though the use of stone foundations was mentioned as being far more durable, it being stated that "such roads will last for ages." The cost for a mile of single track, the wooden cross-pieces being used, was estimated at $5,000.

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[1] See above, p. 182.

[2] *Executive Documents, 1831–32,* No. 101, p. 222.

In 1812 Colonel John Stevens proposed to construct an elevated track entirely of wood, though the possible necessity for iron reinforcement was considered. Such a railroad would have been one long trestle-work. Stevens at first estimated the cost of construction at $4,166 per mile;[3] later he gave $12,369 as the cost of a railway with brick pillars, timber ways, and bar iron plates.[4]

Oliver Evans, in the same year, mentioned Stevens' plan with approval,[5] but spoke of one, John Ellicot, who "proposed to make roads of substances, such as the best turnpikes are made with, with a path for each wheel to run on, *having a rail-way on posts in the middle to guide the tongue of the wagon,* and to prevent any other carriage from travelling on it. Then, if the wheels were made broad, and the paths smooth, there would be very little wear. * * * Such roads," he observed, "I am inclined to believe, ought to be preferred, in the first instance, to those proposed by Mr. Stevens," being cheaper. Stevens' and Evans' plans, however, did not come before Congress directly.

The next report that came prominently before Congress was that made by Strickland to the Pennsylvania society in 1825,—published 1826,—and it indicates considerable progress on most points. Two classes of rails were mentioned: (1) "plate rails" or tramway plates; (2) edge, or fishbacked rails. The latter, it is stated, were coming into general use. The former correspond to the rail proposed by Latrobe. Moreover, Strickland said that either cast or malleable iron might be used, but he did not attempt to decide which was the better, leaning toward the cast iron rail on the ground that experience had tried it. They were to be four feet long, and fitted into stone blocks at their ends, being held by cast iron standards or chairs fastened to the stone. In some cases, however, we are told that oak blocks were used, and that some such device might be advisable in the United States wherever stone was scarce. The heavy frosts in this country, he thought, would necessitate a bed of crushed stone for supporting these blocks, and sleepers would be necessary where the ground was not hard, as on embankments, in order to prevent spreading rails. Strickland anticipated great difficulty in keeping the rails free from dust and gravel. He minutely described "passing or sideling places." Such a road as he proposed would cost about $10,000 per mile.[6]

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[3] *Documents tending to prove the superior advantages of railways, etc.*, p. 27.

[4] *Ibid.*, p. 43.

[5] *Niles' Register*, III, Addenda.

The construction used for the Charleston & Hamburg railroad has already been mentioned. Here wooden rails, capped with iron strips, were adopted, and trestles used in place of any embankments. The road cost about $13,000 a mile.

The South Carolina railroad, too, is remarkable as being the forerunner of what may be called the "American System of Construction." It was built with the idea that traffic would develop, and no attempt was made to make it a permanent structure. Wood was used not only for rails,[7] but also for the ties or "sills," and but a single track was laid. The Baltimore & Ohio and other early railways were modeled more after the English roads. Thus they used granite blocks or sills instead of wood. The Baltimore & Ohio started out as though for all time, with a double track and an ambitious system of grades and bridges, which caused considerable financial embarrassment for a period. Furthermore, the cost of construction was not adapted to the traffic to be hoped for in any short time.

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[6] The following is the itemized estimate as presented by Strickland:

1. Cast iron edge rails, stone foundation, chairs, preparation of horse and attendant paths, etc.	£1,474
2. Forming and draining level ground	38
3. Cuts and embankments	256
4. 1 wooden bridge and 1 stone culvert	60
5. 4 acres of land (a strip 30–40 ft. wide)	80
6. Fencing, including gates to farms	200
	£2,108=$9,359

(At this time the English pound equaled about $4.44.)

[7] It was quite general in this country to use wooden rails, these being overlaid with "straps" or bars of iron.

It may be said that in the one case, according to what may be called the English system, they built above the traffic; while in the other they built beyond it; and as compared to the fourteen miles of carefully graded, stone-silled track[8] of the Baltimore & Ohio, we have the one hundred and thirty-odd miles of wood-tied, single track of the Charleston & Hamburg, constructed in but little longer time.

In the New York report quoted above,[9] the most approved construction is stated to be that of the Baltimore & Ohio, which was described as follows: "A line is first graded, free from short curves, and as nearly level as possible. A small trench is then formed for each track, which is filled with rubble-stone, on which are laid blocks of granite. * * * Bars, or plates, of wrought iron, near an inch in thickness, are then laid upon these blocks or rails * * *, and fastened to the stone with iron bolts or rivets. The distance between the two tracks, for the wheels, should be about five feet. * * * This, it will be perceived, renders the work proof against delapidation, and creates but a trifle more expense." (i. e. the use of stone instead of wood.)

The idea that some support other than earth was necessary was quite general at this time. Thus, in *A Treatise on Railroads,*[10] Thomas Earle says, "Wherever the ground is not solid, it is necessary to build walls, or fill trenches or pits, with broken stone or gravel, for the support of the props upon which the rails are to rest." (p. 19.) The supposed necessity for this construction hampered railway extension through its costliness, and served as an argument for those opposed to it.[11]

In general, it may be said that prior to 1830, any discussion concerning the railway proper centered around the use of stone or wood in construction, and the opinion prevailed that the former was superior for a work of any permanence, or for dense and heavy traffic.

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[8] The Baltimore & Ohio soon adopted less expensive and more practicable construction.

[9] p. 195.

[10] Philadelphia, 1830.

[11] In 1812, Robt. R. Livingstone objected to Stevens' plan. that it would be necessary to extend walls beneath the earth far enough to avoid frosts and above it to escape the snow. (*Doc. tending to prove sup. adv. of railways*, publ. by John Stevens. N. Y., 1812. p. 24.)

Very shortly after 1830, however, this idea was abandoned,[12] and in 1832 the engineer of the Baltimore & Ohio reported in favor of a comparatively modern track for the Washington branch. Wooden ties, three feet apart, were proposed, and for greater strength, wooden strips were to be placed below as well as above these ties. The upper strips were to support iron rails fifteen feet long and weighing thirty-two pounds to the yard.[13]

It is scarcely necessary to state that a steady increase in the weight of rails per yard took place. From the 28-pound rail proposed by Latrobe and the 32-pound rail just mentioned there was a rise till a government engineer in an estimate for a Florida railway, submitted 1842–43, proposed a rail of 60 pounds weight to the linear yard.[14] These estimates are representative of the increase in actual construction.

It seems that many thought even a double track insufficient, maintaining that numerous tracks would be necessary for trains running at different speeds and in different directions.[15] It was objected that all travellers must have the same rate of speed or else there must be frequent ''turnouts'' (sidings), which would multiply casualties; and again that railways could not be accessible at all points, and at no point without interrupting the current of ''wagons,'' unless the same fatal resort to ''turn-outs'' should be taken.[16] It was frequently urged that mud and dust in summer and snow in winter would render a railway impracticable.[17]

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[12] The early construction was soon abandoned by the Baltimore & Ohio and several different kinds of construction were illustrated in a few hundred miles of its track. See Tanner, H. S., *Canals and Railways of the U. S.*, 1840, p. 150. A typical case was that of the railroad from Newcastle to Frenchtown in Delaware. The road was 16 miles long; the first 9 miles were laid with stone blocks; for the rest hemlock planks were laid down on sand or gravel; on these white oak ties were placed 3 feet apart; then 6 x 6 Georgia pine string pieces. which supported iron rails 2¼ inches wide and ⅝ inch thick. Total cost $22,000 per mile, including all expenses, save depots and the like. (*Exec. Doc., 1831–32*, No. 101.)

[13] *Exec. Doc., 1831–32,* No. 101, p. 215 ff.

[14] *Sen. Docs., 1843–44,* II, No. 62, p. 19.

[15] *Ibid.,* No. 18.

[16] *Ibid.*

[17] *Ibid,* and in the *Treatise on railroads* quoted above, Earle says, "The action

(b) *Locomotion.*

As to the power to be used, there was question in Congress as well as in the minds of engineers. Earle writes: "The first thing to be determined in the formation of a Rail-road is the kind of power that is to be employed on it, whether horses or steam-engines;"[18] and that was the question. The locomotives constructed prior to 1830 were weak, crude affairs, and far too ponderous in proportion to the power they developed. Strickland reported that where a considerable distance "admits of being made so nearly horizontal as not to deviate more than * * * 27 feet six inches a mile, locomotive engines may be employed to great advantage," and he thought inclined planes and stationary engines must be used for any steeper ascent. After 1825, however, remarkably rapid progress was made, and some ten years later a government engineer reported that the maximum grade was assumed to be ninety-two feet to the mile![19]

By 1830 it was generally admitted that the steam engine could haul a greater load *at a greater speed* than the horse, and that it could do it more cheaply. But numerous objections were urged, such as meet any innovation. Steam engines were dangerous, being liable to explosion and accident; they caused great wear and tear, and made more expensive construction necessary; great skill would be necessary for their operation, and so on.

However, what caused most question was the utility of steam for hauling heavy, bulky commodities. The report of the English commission on steam navigation, which was studied and printed by Congress, assumes that for bulky objects, where speed was of little importance, horse traction would be cheaper[20] and the great field for railways was supposed to lie in the transportation of passengers. It will be remembered that the first railways were built at collieries, and that Latrobe thought that such traffic alone warranted railways in this country; so by 1830 ideas were to some extent revolutionized. For this change two reasons may be given: (1) there had developed a struggle

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of the horses' feet" would throw gravel and dust on the track, increasing friction and lessening adhesion.

[18] *Treatise on Railroads*, 1830, p. 5.

[19] *Exec. Doc. 1835-36*, III, No. 230.

[20] *Exec. Doc., 1831-32*, No. 101.

between the railway and the canal, in which it was seen that the latter could compete for low grade traffic alone; hence its supporters would profit by such an argument; (2) the early, imperfect application of steam instead of horse-power gave some ground for the idea. It was thought in 1825 that locomotives were not practicable on any but comparatively level roads.[21]

The steam locomotive, however, was not the only means of traction which came before Congress, for both compressed air and electricity are found mentioned in Congressional proceedings as possibly superseding or supplementing steam. The South Carolina Railroad Company had to overcome a difficult grade of a mile or so in length and it seemed that it could not be successfully done by locomotives. Stationary engines were considered, but the company inclined toward the use of a new means—the atmospheric railroad—and at the 1844–45 session of Congress a bill was introduced authorizing the importation of machinery and pipes for such a railroad free of duty. In answering objections, Mr. Evans said that it was a recent English invention which experiments had shown to answer exceedingly well for short distances, that the materials could only be obtained in England, from the inventor himself, and that the importation would benefit rather than injure Pennsylvania iron manufactures by ultimately increasing the home demand.[22] But after this discussion the matter was dropped.

A few years later Senator Benton, in advocating a national railway to the Pacific, desired room for "a track by magnetic power."[23] The idea, he believed, had originated with a Prof. Henry and had been "plausibily pursued" by Prof. Page of the Patent Office. "Who can undertake," asked Mr. Benton, "to say that any idea will not become practicable in the present age?"

(c) *Speed.*

As to speed the estimates and prophecies were various. Robert Livingstone in objecting to Stevens' scheme thought that the road would hardly bear so heavy a load as a locomotive and its cars at a speed of four miles an hour. Stevens, on the other hand, thought that forty of fifty miles an hour were possible, though from twenty to thirty miles would probably be best in practice.[24] In the field of transportation, as in so many others, there were large-minded men who were in advance of their fellows and their time,—who cried out in a wilderness. In a work published in 1813,[25] Oliver Evans, who, like Stevens, was seeking assistance for railway projects, wrote, "The time will come when people will travel in stages moved by steam engines, * * * almost as fast as birds fly, fifteen or twenty miles an hour. * * * A carriage will set out from Washington in the morning, the passengers will breakfast at Baltimore, dine at Philadelphia, and sup at New York, the same day."[26]

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[21] Strickland, *Report*, p. 31.

[22] *Cong. Globe*, 1844-45, XLV, 296.

[23] *Ibid.*, 1848-49, XX, 473.

Thirteen years later men were hardly more sanguine. In 1826 Mr. C. Crozet, an engineer quoted with approval in Armroyd's work on internal navigation, stated, "a rate of speed of more than six miles an hour would exceed the bounds set by prudence, though some of the sanguine advocates of railways extend this limit to nine miles an hour."[27]

By the close of the third decade—after the experiments on the Liverpool & Manchester railroad, and the opening of the Baltimore & Ohio railroad and the Charleston & Hamburg line in this country—the engineer of the Baltimore & Ohio, Jonathan Knight, conceived that if a velocity reaching from fifteen to twenty, or occasionally thirty miles an hour, were to be employed, very heavy, strong tracks would be necessary.[28] He gave the utmost performance of a locomotive for that time as being twenty miles per hour, drawing a load of fifteen tons on a level road. In the same year much was made of the fact that on the Mauch Chunk railroad, where animal traction was used, the very high velocity of from twelve to fifteen miles an hour made the horses and mules sick, and the wagons could not be kept in repair, so the speed was reduced to from five to seven miles per hour.[29] Josiah White, acting manager of this road, wrote an article for the Mauch Chunk *Courier,* in which he stated that, although a speed of sixty miles an hour might be attained yet about six miles an hour would be most economical for heavy loads,—higher speed only being profitable for passengers and valuable goods that would bear heavy tolls.[30]

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[24] *Doc. tending to prove sup. adv. of railways*, p. x, Introd.

[25] There is some doubt as to this date: see Ringwalt, *Dev. of Systems of Transp., in U. S.*, p. 65.

[26] *Ibid.*

NOTE: Horses and oxen riding and working a kind of treadmill were tried, and several experiments were made with sails.

[27] p. 570.

[28] *Exec. Doc., 1831-32*, No. 101, p. 149 ff.

(d) *Cars.*

From the beginning of railroad agitation in this country, it was seen that special vehicles were necessary, and Latrobe wrote to that effect.[31] In the discussion brought before Congress in 1831–32 various devices for decreasing friction in the wheels were mentioned.[32]

(e) *General Utility; Future.*

It is, perhaps, not strange that the railway, especially the steam railway, was looked upon as a huge, complicated mechanism by the men of the early nineteenth century. It is so regarded today. But this fact was made an argument against the introduction of the system, and it was stated by many that wear and tear, liability to get out of order, and inability to regulate its complicated action, would make it impracticable. It must be remembered, however, that the interested opposition of canal and turnpike companies gave expression and persistence to such arguments.

When the first few miles of the Baltimore & Ohio had been completed successfully, it was argued that while a railway from ten to fifteen miles in length might do, one reaching to the mountains would be impracticable. To some men of those times it seemed that the country was too rough, and too poor and backward to make the railway expedient. Latrobe thought this factor limited the usefulness of railways, and a memorial of the Chesapeake & Ohio Canal Company in 1831–32 stated that experience had demonstrated the ''utter unfitness'' of this means of transportation over so rough and unimproved a surface as our country affords, the ''present condition of the wealth, arts and population of the United States'' being considered.

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[29] *Exec. Doc., 1831–32,* No. 18, p. 163 ff., *Report of Acting Manager, Josiah White.*

[30] *Ibid.* NOTE: In 1831 the first practical American locomotive, "The Best Friend", made sixteen to twenty-one miles an hour, and Peter Cooper's "Tom Thumb"attained a speed of twelve and a half to fifteen miles an hour. Brown, W. H. *Hist. of first Locomotive in Amer.*

[31] In England the first railways were adapted to ordinary carriages, and this determined the gauge of tracks which has been generally followed ever since in that country and the United States.

[32] For an account of early cars, see *Exec. Docs., 1831–32,* No. 101, p. 149 ff.; Brown, W. H. *Hist. of First Locom. in Amer.,* pp. 96–106, 230; Ringwalt, J. L. *Dev. of Systems of Trans. in U. S.,* pp. 101–103, and index.

But there were, on the other hand, as early as 1812, at least a few men in this country who believed in the future of the railway, and by 1830 they were in a majority.[33]

Reference has already been made to the fact that by 1830 ideas as to the kind of traffic the railway was best suited for were greatly changed.[34] Without exception, the earliest railways were designed for and introduced in the transportation of coal and the like. But between 1820 and 1830 the belief came into prominence that the railway would only be able to compete profitably with canals as to speed in the transportation of passengers and of the lighter commodities having high specific value. But, again, there were those who supported railways in all fields, and the course of a very few years modified views on this score.

One interesting idea which was early advanced was that the demand for them and the facility with which they could be constructed would lead to a too rapid construction of railways with disastrous results. This prophecy was to be widely fulfilled.

The status of the railway question in 1830 may be drawn from two conflicting utterances, the one by its opponents, the other by its partisans. The memorial of the Chesapeake & Ohio Canal Company referred to above says, ''The time, though remote, may, possibly will, arrive in America when mere speed of transporation will warrant the very heavy cost of constructing railways of such graduation, and of so many different tracks, as to admit of various velocities for persons and property, moving at the same time in opposite directions; and of the substitution on each of these tracks of locomotives, or even stationary steam engines * * * for animal labor;" but this time was remote.[35] But in 1830 Mr. Carson, of North Carolina, in speaking on the Buffalo-New Orleans road bill referred to a miserable, paltry, earthen road, and states that the committee proposing it had fallen in the rear of the march of science. He refers to the railroad as "that highest effort of the human intellect, in perfecting a system of road inter-communication, which, for ease, safety and expedition challenges the astonishment and admiration of the world." He does not mention cheapness of transportation in this list of virtues, and between the two outbursts,—between pessimism and optimism,—lay the truth.

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[33] This probably was not true as to steam railways.

[34] p. 200.

The conclusions to be drawn from this chapter may be summed up as follows:

1. The subject of railway transportation was brought before Congress as early as 1808, and the activity of a few broad-minded, inventive men agitated the subject from time to time thereafter.

2. The railway was generally recognized as a permanent and useful factor in transportation by 1830, but

(a) There was doubt as to the grade of traffic it would take, and

(b) The advantage of steam over horse-power was not decided.

These conditions and ideas directed the attitude of Congress toward railways.

3. Construction was beginning to break away from English influence and to become cheaper and more elastic.

4. Congress had been appealed to, had shown active interest and paternalistic tendencies, but stopped short of actual construction.

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[35] *Exec. Doc., 1831-32,* No. 18.

CHAPTER III

COST OF TRANSPORTATION AND RATES OF TOLL

Estimates of Cost

In the days of the first railways, both in the United States and in England, it was thought that the rates of charges for transportation on railways would be made up similarly to those obtaining upon ordinary roads and canals. From the beginning, however, the supporters of railways urged that rates would be much lower upon that means of conveyance than on turnpikes. Thus, Oliver Evans, in 1804, submitted a statement to the Lancaster Turnpike Company which was intended to show that one steam carriage such as he proposed would yield a larger net profit than ten wagons each drawn by five horses on an ordinary turnpike.[1]

And in 1812 John Stevens was even more definite and sanguine. He stated that much of our internal commerce was at that time only effected at a cost of 50 per cent. on the value of the commodity transported, whereas the railway would make a saving of at least nine-tenths of this charge and reduce the cost to about 5 per cent. Stevens proposed government ownership, arguing that a 5 per cent. toll, in addition to the 5 per cent. cost, would yield an enormous revenue; while at the same time it would save the remotely situated farmer some four-fifths of the charges he was then paying.[2]

In another place he estimated that one ton might be transported 280 miles for 50 cents, which would mean a rate of about .178 cents per ton per mile. He showed that, even allowing double this amount, the cost would be only one-third the estimated rate for the canals, and so the state might collect a toll in addition, and still allow relatively low rates.[3] Stevens' estimates were made on the basis of steam locomotion.

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[1] *Niles' Register,* III, Addenda. p. 5. Evans, however, did not contemplate a way of rails such as Stevens projected; see above pp. 185 and 196.

[2] *Doc. tending to prove the sup. adv. of railways and steam carriages, etc.,* p. ix, Introd.

In Strickland's report,[4] an English engineer's estimate is cited to the effect that the expenses of operating a locomotive would be less than 30 shillings for drawing 50 tons a distance of 60 miles in ten hours. This would equal less than half a farthing per ton per mile or about .22 cents.[5]

These estimates, it will be observed, are very low—lower, probably, than the cost could have been at that time. There was no basis for a true estimate of depreciation and cost of repairs or replacement.

B. H. Latrobe, who was opposed to railways, took the ground that, with a few exceptions, sufficient traffic could not be developed in this country to warrant the cost of constructing a railway.

In the documents relative to the comparative merits of canals and railroads[6] which were added to the English report on steam navigation, Jonathan Knight, engineer for the Baltimore & Ohio Railroad Company, gave the cost of transportation as being not greater than .75 cents per ton per mile,[7] and stated that on a level road it might be as low as .5 cents per ton per mile. These figures were based on a railway adapted to horse power.

In 1836, in a speech advocating a railway in place of the National Road, it was stated that the government would only need to charge about 2 cents per mile to keep the former in repair and pay costs of transportation.[8]

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[3] *Ibid*, pp. 20-21.

[4] See above, p. 190.

[5] Counting a shilling as 22.2 cents.

[6] *Exec. Docs., 1831-32,* No. 101, p. 149 ff.

[7] *Ibid.*, p. 156.

[8] Mr. Jackson (H. of R.), *Cong. Debates, 1835-36,* p. 4495. This may refer to passenger rates.

ACTUAL RATES*

In a document laid before Congress in 1831, the actual cost of transportation was given as 3.53 cents per ton per mile.[9] This cost was obtained from a road operated by animal power. It is interesting that a report to the New York canal commissioners, made five years later, stated the cost of transportation on a level railroad to be 3.5 cents,—practically the same amount. This report was severely criticised by railway men, however, as being based on a poorly constructed road which could not be called typical,[10] and it did not make allowance for the saving in time that resulted from the use of steam locomotion.

In 1831 the Pennsylvania canal commission, in its annual report, stated that the cost of transporting coal on the Mauch Chunk railway and on ten miles of railway from Tuscarora to Port Carbon was 4 cents per ton per mile, and that the toll on the latter road was 1.5 cents per ton per mile, making a total charge of 5.5 cents.[11]

In 1832 we find figures drawn from the early operation of a more perfect road. In debate over a proposed subscription to the stock of the Baltimore & Ohio railroad, Mr. Smith of Maryland read a statement of the cost of transportation by that railway.[12] For transporting a barrel of flour from the Point of Rocks to Baltimore, a distance of about seventy miles, this was 27 cents; the transportation of a ton of iron cost $3.17. This makes a per ton per mile rate on iron of about 4.5 cents.

As to passenger fares, we are told that in 1835 it cost $2.50 to travel from Washington to Baltimore, a distance of about thirty-eight miles, and this fare of over 6.5 cents per mile was remarked upon as a triumph of the railway over the stage.[13]

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[8] See p. 214 for further cases.

[9] *Exec. Docs., 1881-32*, I, No. 18, p. 164:

Mules and horses	1 1/3 cents
Hands	1 1/3 cents
Repairing wagons	2/3 cents
Oil for wagons	1/5 cents

[10] See Ringwalt, *Dev. of Systems of Trans. in U. S.*, p. 49.

[11] *Exec. Docs., 1831-32*, No. 18, p. 178.

[12] *Cong. Debates, 1831-32, Sen.* May 24, p. 952.

[13] *Cong. Debates, 1835-36, H. of R.*, p. 4495. In 1840 H. S. Tanner wrote that

In a committee report of 1848–49 we find a general statement as to cost of transportation and something concerning the freight rates of the time. The average expense of transportation on the best managed roads of the country was reported to be about 2 cents per ton per mile. On the authority of the Baltimore and Ohio's 1848 report, the committee stated that the actual cost of transportation to that company was 1.849 cents per ton per mile, while the rate charged was 3.96 cents for a like unit.[14]

Most of these statements of actual rates were given by those interested in canals and opposed to the perfection and extension of railways; and in any case were those charged upon short, imperfect, horse-railways. Yet these were the only railways which had been in operation long enough to afford a basis for such statements. While the enthusiastic or far-sighted might foresee lower charges, it was natural that the high rates actually charged on such railways as there were should form an effective argument against their further introduction, and the broad and buoyant optimism of the men of those days surely appears in the slight retarding effect which was exerted by the imperfections of these first railways.

LIMITATIONS ON RATES IN CHARTERS

As stated at the beginning of the chapter,[15] it was at first thought that railway rates would be made up similarly to those on canals and highways; hence it was customary to distinguish two elements in the charge: one for cost of the service rendered, another for "toll," being the net earning on the service.[16] Furthermore, it was thought necessary to provide

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De Gerstner had concluded that 5 cents was the average passenger fare of the time.

See *A description of the Canals and Railroads of the U. S.* (1840), p. 22.

See also below, p. 213, note 29.

[14] *Rep. of Com., 1848–49*, No. 145, p. 28.

[15] p. 206.

[16] The former was a payment for transportation; the latter, or toll, was a payment for use of track, or "way". This proper and logical use of the terms was reversed in some cases, and it is the "toll" which varies with the direction of the traffic according to the charter of the Baltimore & Ohio.

for tolls on vehicles which might run upon a company's railway without belonging to the company.

As illustrating the latter point, and giving a manner of limiting rates very common in the earlier days, the charter of the Brunswick Canal & Railroad Company may be presented. Section 7 of the act by which this railway company was incorporated runs as follows: "* * * and the said company shall be entitled, and they are hereby empowered, to demand and collect by way of freight or toll, on all goods, wares, merchandise, and productions of the country * * * and cars or vehicles of any description, conveyed * * * over and upon said railroad, such rates of toll or freight as the board of directors of said company may find necessary to adopt from time to time in their regulations of toll; Provided, That during any twelve months together, the net amount shall not exceed 25 per cent per annum upon the aggregate amount of money they shall have actually expended in making, constructing, and keeping in good repair the said * * * railroad."[17]

The limitation of tolls by stipulating that they should not yield more than a certain percentage on the capital invested was quite general. For instance, a charter of 1835 restricted it to 20 per cent.;[18] in the same year another charter provided that if the rates of toll charged enabled the railway to pay more than 15 per cent. on its capital stock, "then the said rates of toll and transportation shall be so reduced * * * as to enable them to divide 15 per cent. and no more;"[19] and in 1836 the act incorporating the Illinois Central prescribed that if the average net earnings of ten years should amount to more than 12 per cent. on the cost of the road, the legislature of Illinois might reduce the rate of tolls.[20]

Such limitations were of little importance and could easily be evaded. They are chiefly significant as indicating a tendency to restrict and control.

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[17] *Exec. Docs., 1836–37*, III, No. 122. This was a Georgia corporation created in 1834. Its charter appears in the documents of Congress in connection with a memorial.

[18] *Exec. Docs., 1834–35*, III, No. 126.

[19] *Rep. of Com., 1837*, No. 238.

[20] *Rep. of Com., 1836–37*, I, No. 121.

MAXIMUM RATES

More important was the prescription of definite maximum rates of tolls on both passengers and freight, which might appear with, or without the above limitation on net earnings. As early as January 4, 1831, in discussing a bill authorizing the construction of a lateral branch of the Baltimore & Ohio to Washington, Mr. Semmes, of Maryland, submitted the following amendment: "Said company not to make any higher charges for tolls on transportation on any part of road * * * than are allowed by law for tolls and transportation from west to east on the B. & O. R. R. * * * ."[21] The charter of the Baltimore & Ohio railroad, as Mr. Semmes explained, allowed it to levy different rates of toll according to the direction of the traffic.[22] From west to east rates were not to exceed 1 cent a ton per mile for toll, and 3 cents a ton per mile for transportation; while from east to west the company had power to charge 3 cents per ton per mile for toll in addition to the 3 cent transportation charge. Thus the amendment would have reduced the average maximum freight rate by 20 per cent.; passenger rates were limited to 3 cents per mile.

As finally passed, however, the act authorizing the construction of a lateral branch of the Baltimore & Ohio railroad into the District of Columbia did not make the reduction, merely providing that rates of toll in the District should not exceed 3 cents per ton mile for toll, and 3 cents per ton mile for transportation;[23] that is, a maximum rate of 6 cents per ton per mile.

In addition, certain special rates were authorized for the exclusive use of cars or parts of cars for parcels not exceeding 200 pounds in weight:[24]

Parcels weighing 50 lbs. or less (or measuring 2 cu. ft.) 1 cent per mile.

Parcels weighing 50 lbs. to 200 lbs. 2 cents per mile.

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[21] *Cong. Debates, 1830–31, H. of R.*, p. 400. There were other features in the amendment.

[22] See *Laws and Ordinances relating to B. & O. R. R. Co.* (Balt. 1834), p. 10.

[23] *Cong. Debates, 1830–31*, Appendix, p. 52, Section 1.

[24] *Ibid.*, Section 2.

Parcels weighing 200 lbs. to 1000 lbs. half ton rates.

Parcels weighing 1000 lbs. to 1 ton, ton rates.

In other words, any article or parcel weighing less than 50 pounds could be charged 1 cent per mile; if the parcel weighed more than 50 pounds, but less than 200 pounds, it would be liable to a rate of 2 cents per mile; a parcel of any weight between 200 and 1,000 pounds would be considered as weighing half a ton; while any article which weighed over 1,000 pounds went as though it were a full ton. Thus the wholesale principle, according to which small shipments are charged for at a higher rate than large ones, was early recognized, and was given extremely pronounced expression in this act of Congress.

Section 4 sets a maximum charge for passengers. The company was authorized to collect a sum not exceeding 12.5 cents "for taking up and setting down" a passenger carried less than four miles within the District. If the railway company had seen fit to charge the maximum, it would certainly have encouraged "through" passenger traffic!

The Virginia act of 1835,[25] which incorporated the Falmouth & Alexandria Railroad Company, contained like provisions, but the rates were even higher: it empowered the company to charge 8 cents per mile for passengers,—or, if the distance travelled were under ten miles, an extra charge of 50 cents "for taking up and setting down" was authorized,—and provided that freight rates were not to exceed 10 cents per ton per mile.

The charter of the Winchester & Potomac railway allowed a charge for transportation of 4 cents a ton per mile in the case of "descending articles," and 6 cents a ton per mile for "ascending articles," and passenger rates were not to exceed 3 cents per mile.[26]

Other charters are found in the Congressional documents which contain no limitation upon rates, or merely provide that rates shall not be changed without public notice in advance.[27]

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[25] *Rep. of Com., 1837*, No. 238. Section 24.

[26] *Exec. Docs., 1837–38*, XI, No. 465, p. 17. The provisions for the Great Western Ry. Co. were the same: *Sen. Docs., 1843–44*, III, No. 142. Ascending traffic was that traffic on the up grade.

[27] E. g., *Sen. Misc., 1849–50*, I, No. 59 Pac. R. R. of Mo.

MAXIMUM RATES OF SIGNIFIANCE

It might be thought that these maximum rates are without meaning and that they bear no close relation to actual rates of charge. There is ground for believing that such is not the case, however,—at least down to 1836.

In the first place, we find the canal companies complaining that they were suffering in that by charter they were limited to lower rates than were the railways.[28]

Again, in the president's report for 1836, it was stated that rates on the Baltimore & Ohio were too low, partly in consequence of which the road was in poor financial condition. A list of the authorized rates on other roads was presented to show that the maximum was not high enough.[29] This statement has no significance unless it means that at least in some cases rates were as high as the maximum.

The committee on roads and canals reported to the House in 1836 that "In the construction of the Cotocton aqueduct * * * it was found to be good economy to transport upon the Baltimore & Ohio railroad * * * the granite * * * at the charge of 6 cents per ton per mile."[30] The report would seem to indicate that in this case the maximum rate was charged.*

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[28] *Exec. Docs., 1831–32.* I, No. 18, pp. 193, 197. Of course, this complaint was illogical. It conflicted with the argument that the canals afforded much cheaper service than railways.

[29] See Reizenstein, M., *Econ. Hist. of the B. & O. R. R.* in *Johns Hopkins University Studies*, XV, 361. The list is as follows:

Railway	Pass. rate (per mi.)	Frt. rate (per ton per mi.)
Petersburg	5 cents	10 cents
Winchester & Potomac	6 "	7 "
Portsmouth & Roanoke	6 "	8 "
Boston & Providence	5 "	10 "
Boston & Lowell	3½ "	7 "
Mohawk & Hudson	5 "	8 "
B. & O. Old Law	3 "	4 "
" New "	4 "	6 "

[30] *Rep. of Com., 1835–36,* III, No. 671.

* NOTE.—As further evidence that maximum rates were charged and as showing some actual rates, the following material taken from pp. 67–68 of the *Jour-*

Rates Based on Cost

The provisions in the charters of the Baltimore & Ohio and Winchester & Potomac railways, noted above,[31] which allow different rates of charge on articles moving in different directions, are interesting. The fact that building railways on any considerable angle of ascent would make cost of transportation vary according as the traffic moved up or down, was among the first facts in railway economics that was grasped by engineers. In 1825, Strickland in his report explained that if traffic were equal both ways, a level road was to be preferred; otherwise such an inclination as favored the heavier traffic. The report of the government engineer to the president and directors of the South Carolina Canal & Railroad Company contained a minute calculation of the relation between ascent and volume of traffic which would make equal power sufficient for transportation both ways.[32]

Mr. Semmes, in referring to the provisions of the Baltimore & Ohio in this regard, stated that the heavy expenditure for constructing the road from Baltimore westward, and for procuring engines and cars to transport heavy articles up a con-

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nal of the Internal Improvement Convention, held in Baltimore, Dec. 8, 1834, is of interest:

Table Showing Cost of Transportation by Existing Works

From Baltimore to Wheeling

By the Rail Road to the Point of Rocks (70 mi.) at 6 cents West and 4 cents East, or an average of about 5 cents per ton per mile, say...	$3 25
By the Canal, thence to Dam No. 5 (60 mi.) at 2 cents freight and 2 cents toll, or 4 cents per ton, 2240 lbs. being for 2000 lbs..........	2 14
By the Cumberland and National Roads, thence to Wheeling (57 mi.) per waggon, carrying 5000 lbs. at $4. per day, allowing 11½ days, would be, per 2000 lbs..	18 40
Whole cost, per 2000 lbs., ...	$23 79

Calculations of com. "have been formed on the present rates of transportation on the Balt. & O. Rail Road,—and the Chesapeake & Ohio Canal.—*which are the highest rates of tolls that can be charged* on either of said works." Also assumed traffic E. & W. to be equal.

(*Report on cost and time req. to trans. merchan. and pass. between Balt. & the Ohio river.* Signed John Davenport, Ch'n.)

[31] pp. 211, 212.

[32] See above, p. 193.

tinuous ascent over the mountains had induced the legislature of Maryland to allow a greater charge from east to west.[33] Moreover, the same provision existed in the charters of many other railways.

Clearly the idea prevailed that rates were to be based solely on cost,—upon weight, bulk, distance, and grade.

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[33] See above, p. 211.

CHAPTER IV

RAILWAYS VERSUS CANALS
1830–1840

Railways did not Find a Clear Field

When the railway came it did not find a clear field. It found well-established canals and turnpikes already occupying many of the most profitable routes, and those whose fortunes were sunk in such systems naturally made every possible objection against a means of transportation which would rob their investments of value. For some time, too, unbiased engineers were in doubt as to the relative merits of railways and canals, in which doubt Congress shared. It is the purpose of this chapter to describe the early conditions in this regard, in so far as they bear upon the attitude of Congress toward railways, and to trace briefly their development down to the time when the railway superseded the canal as a means of internal improvement which could be regarded as national. Incidentally light will be thrown upon the general question as to when the railway became predominant in the greater part of the field of transportation.

The House Inquiries: 1825

In 1808 Latrobe had written that railways could not be adopted to advantage in this country, and Gallatin's report merely proposed canals and turnpikes. Everyone knew that in 1812 Stevens' proposal to substitute a railway for the projected Erie canal had been rejected by the commissioners. Rapid improvement in track and locomotive, however, soon put a new face on matters, till in 1825 William Strickland could write from England, that railways had received numerous tests which proved them to be practicable, and he announced that one was about to be constructed from Newcastle to Carlisle in preference to a canal.[1] At about this time, too, the Liverpool & Manchester railway was being planned to parallel a well-established and profitable canal.

These developments could not but affect the proceedings of the Congress of the United States, which, as we have seen, was continually considering plans for improving the transportation and communication facilities of the nation. It is more than a coincidence that on December 15, 1825, it was resolved by the House of Representatives[2] that its committee on roads and canals be instructed to inquire into the utility of railways, and that it report to the House upon the comparative cost of constructing railways and canals, together with the relative advantages of the two modes of conveyance. The resolution implies a desire to encourage a system of ''internal improvement;'' but it was not clear that the railway was practicable, or that it was a better system than canals afforded.

Just as the year 1825 marks a growth of active interest in railways, so it is the time when the question as to the relative merits of canals and railways came before Congress as an important one.

CONGRESS EXPERIMENTS: 1830

Between 1825 and 1830 improvement in railway construction was especially rapid, yet even at the latter date its superiority was not clear. In that year the committee to which was referred a memorial of the Baltimore & Ohio Railroad Company mentioned the fact that the Chesapeake & Ohio canal and the railway were proceeding over the same territory, and rejoiced that a direct and conclusive experiment was now to be made.[3] Accordingly a bill was reported for aiding the railway as far as the Point of Rocks, where it came together with the canal.[4] The committee only reported after having "reflected much on the interesting question, now in agitation in England and this country, namely, whether railroads are to be preferred to canals in ordinary cases, and on routes where there are no intermediate water communications;" and they wished it to be understood that not the slightest preference was to be given to either.

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[1] *Reports on Canals, Railways, etc.* (Phila. 1826), p. 23. 25 copies of this report were purchased by the House of Representatives, see above, p. 190.

[2] *H. J., 1825-26.* See above, p. 190. No report was made.

[3] *Rep. of Com.; 1829-30,* II, No. 211.

This report was made notwithstanding the opposition of the Chesapeake & Ohio canal, and in spite of the impartial words used, it would seem to indicate a strong tendency toward the railway,—especially in the light of later developments. But it shows that people were still divided on the subject.

The Baltimore & Ohio Versus the Chesapeake & Ohio

In this connection the struggle that was taking place between the Baltimore & Ohio Railroad Company and the Chesapeake & Ohio Canal Company is typical of the status of affairs in general. An account of this controversy, so far as it throws light on the subject of this chapter, follows.[5]

The Chesapeake & Ohio Canal Company was chartered by Virginia in 1824, and in 1825 Congress confirmed that charter. The books of the company were opened, and by November, 1827, one-fourth of the stock being subscribed, the corporation was established. In the same year, at a public meeting in Baltimore, a report was adopted according to which the legislature of Maryland was applied to for a railway charter; the charter was granted; the Baltimore & Ohio Railroad Company came into existence as a corporation. In April of the same year, the company applied to the government for surveyors.

Now, the railway company had made it known that they intended to proceed toward the Ohio by a "direct route," and this fact, together with the saving in time and expense supposed to accompany it, aided it in securing favor. The company, moreover, was well acquainted with the projected canal route, which followed the line of the Potomac river. In 1828, however, when construction was begun, instead of taking a direct route, it proceeded to survey its way along the Potomac valley, and soon came into contact with the canal at the Point of Rocks, where but a narrow strip of land was available along the river. Controversy arose, and was soon carried into the courts.

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[4] The report was not favorably acted upon.

[5] This account is drawn almost entirely from Congressional debates and documents. For a more general account, see *J. H. U. Studies,* XV, 285 ff; XVII, 519 ff.

Both of these corporations had been aided by Congress, the canal company by a subscription to its stock, and the railway by government surveyors. Moreover, both were seeking further assistance, so the conflict came prominently before Congress. In 1829 the canal company memorialized Congress,[6] stating that by its charter it was authorized to construct a *railway* on its "middle section" over the Alleghenies; hence this railway (the Baltimore & Ohio), which was asking assistance[7] was usurping its place. Further, it asked that no opinion be expressed as to the relative legal pretensions of the opponents.

Meanwhile, the legal controversy thickened. An injunction was obtained from the Washington county court by the canal company against the railway. The railway company in turn secured an injunction against the canal company, which had attempted to rush its construction through; but, upon appeal, the canal company won, and the railway had the worst of it on the legal side. Popular opinion, however, supported it, and, through the state legislature, pressure was brought to bear upon the canal company[8] which resulted in a compromise. In 1833 it was finally agreed and settled that in return for a subscription for 2,500 of its shares by the railway company, the canal company was to build both systems through the Point of Rocks.[9] This was a victory for the railway.

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[6] *Sen. Docs., 1828-29*, II, No. 99.

[7] The Baltimore & Ohio presented a memorial asking stock subscription, December, 22, 1828. See below in chapter IX.

[8] *Exec. Docs., 1832-33*, No. 113.

[9] The nature of this compromise accounts for a memorial of the president and directors of the Baltimore & Ohio R. R. Co. in favor of a further subscription of stock in the Chesapeake & Ohio Canal Co., which was presented in 1834 (*Exec. Docs., 1833-34*, III, No. 95). The redundancy of the revenue and the national

THE BALTIMORE & OHIO—CHESAPEAKE & OHIO CONTROVERSY TYPICAL OF THE TIME

It is to be emphasized that this controversy is of more significance than a mere squabble between the interests of two corporations. It typifies the general situation that existed in 1830 as regards the transportation question. It was not the fate of the Chesapeake & Ohio canal alone that was decided, but that of many others. The Chesapeake & Ohio was the result of years of agitation and planning, for it had sprung from the ruins of an earlier project by the Potomac Company, to the establishment of which the interest of Washington himself had contributed. The founders of the new canal plan had only decided upon that plan after much discussion, in which the railway figured as a possibility, and the railway was rejected. In the minds of most men down to about 1830 the canal was the beau ideal of perfected transportation. At the close of this third decade, however, at least four factors combined to work a revolution. These factors were: (1) the growing extent and importance of the West; (2) the decline, real or feared, of the Atlantic coast states south of New York; (3) the realization of the limitations of canals from topographical conditions,—mountains, lack of water etc.; (4) rapid progress in railroad invention and improvement. They centered in Baltimore.[10] It was the working of these forces, given point by the rivalry with New York City, that made the triumph of the Baltimore & Ohio railroad possible at this time, and its triumph opened the way for others.

Exactly the same forces[11] were at work at Charleston, and led to the establishment of the Charleston & Hamburg Railroad Company only a few months later.

As has been observed, this controversy came prominently before Congress, and it has been intimated that that body virtu-

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character of the work were urged as grounds for granting $1,000,000 to be expended on the western section of the canal.

[10] See *Memorial of the Citizens of Baltimore to the mayor and city council, in relation to the Baltimore & Ohio Rail Road,* presented in council, Feb., 1836.

[11] The impracticability of a canal was not so great, however, while the spread of cotton culture westward was more important.

ally favored the railway. Direct evidence is at hand. The committee of the Senate which reported on the Baltimore & Ohio memorial in 1829, said, "that public confidence in this description of road is rapidly increasing. In England such roads have become numerous, and several successful experiments" have been made in the United States.[12] In the House the president of the Chesapeake & Ohio Canal Company, Mr. Mercer, was chairman of the committee on roads and canals, so we cannot look to this committee for representative reports. This same president and chairman, however, in a private letter under date of May 14, 1830, writes: "In the existing temper of the committee on roads and canals (Senate), I clearly perceive that any memorial which we might present would be unfavorably regarded, and I had too little reason to hope a more favorable result from the House while the present delusion (!) prevails in favor of the railroad."[13]

The nature of this "delusion" is apparent in the words of a speaker in the House at the session during which the above was written. Mr. Carson, in the speech already quoted,[14] referred to railways as outstripping canals here and abroad, and exclaimed, "Yes, sir, the honorable gentleman from Virginia (Mr. Mercer) must hear the appalling, the heart-rending fact, that this mighty monument (the C. & O. canal) * * * must fall, and must give place to the superior improvement of railroads."[15]

The conflict between the Baltimore & Ohio Railroad Company and the Chesapeake & Ohio Canal Company was of great importance in educating the people and Congress, and is of value to the historian as fixing the period at which the canal clearly began to be supplanted by the railway in congressional favor.

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[12] *Sen. Docs., 1828-29,* I, No. 73.

[13] See *The Early Development of the Chesapeake & Ohio Canal Project,* in *J. H. U. Studies,* XVII, 104. For early illustrations of such delusion see below, p. 269.

[14] See above, p. 205.

[15] *Cong. Debates, 1829-30,* p. 669 ff.

Movement from Canals to Railways

This change in opinion was not confined to the one case, however. In 1830 the same tendency is shown in the movement to authorize the transfer to railways of land grants previously made to canals. Ohio petitioned for the right to devote her two per cent. fund to the construction of railways instead of canals, and the Senate committee on roads and canals reported favorably, on the ground that recent improvements had caused the more intelligent to deem the railway superior to canals in many, if not all, respects.[16] At the next session of Congress the House resolved to inquire into the expediency of authorizing Indiana to substitute a railway in place of a canal for connecting the Wabash with Lake Erie,[17] and during the session which followed the same action was taken with regard to the Illinois & Michigan canal in Illinois.[18]

In 1833 an act was passed which provided that land granted the state of Illinois for the above canal might be "used and disposed of by said state for the purpose of making a railroad instead of a canal,"[19] and in the same year similar acts were passed for Ohio and Indiana.

Exceptions to the Movement

But, although the predominance of railways was assured by 1830 or shortly thereafter, they did not actually and every-

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Note.—Bibliography for Baltimore & Ohio-Chesapeake & Ohio controversy:
Sen. Docs., 1828-29, II, No. 99.
Sen. Docs., 1829-30, II, No. 144.
Rep. of Com., 1829-30, II, No. 211.
Exec. Docs., 1831-32, No. 18.
Exec. Docs., 1832-33, II, No. 93.
Exec. Docs., 1832-33, III, No. 113.
Exec. Docs., 1832-33, III, No. 117.
Rep. of Com., 1833-34, Appendix C, p. 117.
Exec. Docs., 1833-34, III, No. 95.
Hulbert, *Historical Highways,* XIII, 116.
The monographs in *J. H. U. Studies* above referred to.

[16] *Amer. State Papers,* Feb. 8, 1830. Pub. Lands, VI, 138.

[17] *H. J., 1830-31,* Jan. 5, 1831, p. 147.

[18] *H. J., 1831-32,* p. 71.

[19] *Laws of the United States,* VIII, 833, Sec. 1.

where predominate till a much later time. In 1835–36, a proposition to change the Cumberland Road to a railway failed in Congress.[20] As late as 1846 a committee in its report said, "It is not intended to maintain that a railroad is, in the abstract, a better medium of conveyance * * * than a navigable stream,"[21] and in the same year it was thought necessary by another committee to explain that the nature of the country made canals impracticable.[22]

In the state of Wisconsin the railway did not gain ascendency until about 1847,[23] certain sections supporting canals and river improvements.[24] This is true for other sections, especially in the West and South; but is not of great importance to a congressional history because of the distinction between national and local improvements; while railways did not predominate in public favor in all sections at so early a date, they did in Congress, where improvements of "national importance" alone could properly be considered.

The Railway Predominant

Thus, while the facts already presented justify the conclusion that by 1830 the railway was recognized as a permanent factor in transportation, and that Congress showed a strong tendency to favor it over the canal, it cannot fairly be said that it predominated actually and everywhere till later,—till the early forties.

The crisis of 1837 contributed largely to this end.[25] Prior to that date there was a great deal of canal building on speculation, and these "enterprises" fell in the panic. Stigma attached to them as a result. Moreover, they had been carried on generally by the states, and suffered from the general downfall of state activity and collapse of state credit. Railway construction, on the other hand, did not suffer from the panic to any great extent, and it was more frequently carried on by private companies.

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[20] See *Cong. Debates, 1835–36*, p. 4540.

[21] *Rep. of Com., 1845–46*, II, No. 301.

[22] *Sen. Docs., 1845–46*, No. 152, p. 8.

[23] Meyer, B. H., *Hist. of Early R. R. Legislation in Wis.*, in *Wis. Hist. Coll.*, XIV, 219.

[24] There were at least three chief grounds of opposition:

(1) It was objected that the state could not yet support railways.
(2) Plank and macadamized roads were better for farmers.
(3) Railroads were monopolistic.

This illustrates the fact that the struggle went on in the border states on much the same lines that it took place in Congress nearly two decades earlier.

[25] Hadley, *Railroad Transportation*, pp. 31–33.

SUMMARY OF ARGUMENTS ADVANCED FOR AND AGAINST RAILWAYS

In the first session of the twenty-second Congress, the subject of the relative merits of canals and railways was thoroughly threshed out, and nearly all the arguments pro and con may be found in the documents[26] of this time, 1831–32. Much that was said concerning the early ideas as to construction and utility of railways also applies here.[27]

In the learned discussions of this matter, the proper way to begin—in case the railway was to be supported—was to state that the effect of power applied on a railway is constant at all speeds, whereas in the case of a canal resistance increases as the square of the velocity. In other words, it was argued that while on a canal friction increased at a greater rate than speed, on a railway it increased only at about the same rate, and hence canals could only afford to compete for slow traffic. Its greater speed gave the railway important advantages over canals in carrying the mails, troops, passengers, and all perishable commodities. From the beginning, the desire of the public for speedy mail service put a strong weapon into the arsenal of the railway.

Coupled with the argument of superior speed was that based on a more extended range of service. Canals, it was observed, were limited by mountains and lack of water, while railways could reach the farmer everywhere and carry his produce to the cities.

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[26] *Exec. Docs., 1831–32,* Docs. No. 18 and 101.
[27] See above, p. 195 ff.

When it was added that they furnished continuous service during the whole year, while canals were frozen during the winter, a strong argument was at hand for the statement that the railway would be far more efficient than the canal in equalizing supply and demand, preventing gluts and monopolies. This argument was advanced.[28]

Again, it was generally admitted, though sometimes disputed by canal companies, that the cost of construction of railways was less. They could be built more quickly, too, and it was pointed out that this was not only desirable in itself, but meant a saving in interest on the capital invested.

Finally when but a few miles of railway had been constructed, it was argued that it would be bad policy to trans-ship goods, and that all-rail routes were preferable. The camel had his nose within the tent.

In behalf of the canal it was urged that practice showed that the railway was an adjunct to the canal and that they were used together. Such an argument shows that the canal was on the defensive and was willing to make concessions; the Chesapeake & Ohio company came to practically admit that the middle section of its route should be a railway.[29] Canal supporters asserted that no canal had ever been changed to a railroad. The boasted superiority in speed, said they, was after all very limited. Twenty to thirty miles an hour would be fatal. And again, experiments with steam canal boats were being made which showed that great speed could be attained in that way. It was feasible, too, to keep canals freed from ice in winter.

The strongest argument, however, was the cheapness of transporting heavy, bulky commodities, especially where speed did not play an important part; the cost, it was asserted, was about one-third that on railways. The argument, however, as it left a large field open to the railway, could not be effectual in checking the growth of a favorable sentiment in Congress.

In checking the growing popularity of railways in Congress, the general appeal to conservatism was most effective. "Go slow,'' said the canal faction to Congress, ''it will take years to decide which system is the best adapted to transportation in this country;'' and they pointed to the sparse population and uneven surface of the land. Such an argument was two-edged, however, and could at most but put railways and canals on a common level of disadvantage. And it did not reckon with the American system of railway construction (and financiering).

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[28] *Exec. Doc., 1831-32,* No. 101, Appendix to the *Report on Steam Carriages.*
[29] Above, p. 219.

Some of the economic arguments were quaint and fallacious; others showed valid foresight. It was urged that canals were superior ''as a public work'' and that railways were undemocratic. At the same time, it was clearly seen that railways were liable to cutthroat competition, and that a ''parallel line'' might involve the original and itself in common ruin. The fear was expressed that railways might be built too fast, and that, being abandoned, they would decay. Canals would be more permanent.

The foregoing comprises the chief arguments as to the relative merits of railways and canals, as they were advanced in Congress up to 1830. It remains to be added that the question differed considerably according to the tractive power proposed: if animal power was to be used, the argument from speed was not so strong, but there could be no objection on the score of danger and the like.

It should be remembered that a large part of the opposition to railways was entirely sincere. Many men really believed them impracticable, even in 1830, though, as has been observed, the bias of interested canal owners played a great part.

EARLY RAILWAYS OFTEN NOT REGARDED AS MERELY AUXILIARY TO CANALS

It has been stated[30] that the earlier railways were regarded as merely supplemental to rivers and canals, which they followed for the purpose of rendering assistance at certain places and seasons, and that before 1850 men generally considered them as auxiliary to water transportation. But a study of the earlier railways makes modification of this statement necessary.

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[30] Sanborn, *Congressional Grants of Land in Aid of R. Rs.*, pp. 17, 23.

(1) In the first place, we have seen that in the earliest mention of railways by Latrobe, they were thought of as being used in regions and for purposes for which canals and rivers could not be available.

(2) Again, railways were thought of as taking one kind of traffic; canals, another.

(3) As will be shown later,[31] the earliest assistance to railways was rendered to "canals or railways," and the earlier companies were frequently formed to construct a canal or railway. Thus, the railway was often regarded not as an auxiliary, but as an alternative to canals. There were some bitter struggles between the two, and the railways supplanted canals.[32]

(4) Out of thirty-two projected railways mentioned in a work on the internal navigation of the United States[33] (1830), the majority do not follow water courses, or from their location are distinct and independent from canal or river traffic.

(5) Railways were spoken of as presenting an effective competition to rivers as a means of transportation.[34]

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[31] Below, pp. 277, 284.

[32] The New York Central was built in competition with the Erie canal; the Baltimore & Ohio competed with the Chesapeake & Ohio canal; several of the early roads were built to compete with river transportation.

[33] Armroyd, George, *Internal Navigation of the United States* (Phila., 1830), p. 574.

[34] *Cong. Debates, 1835-36,* p. 4542.

CHAPTER V

RAILWAYS SUPERSEDE ROADS AS A NATIONAL IMPROVEMENT

The introduction of railways met opposition not only from canals, but also, though to a much less extent, from roads or turnpikes; not only did the railroad generally supersede the canal in the country at large and in congressional favor, but it also superseded common roads as a national improvement.

Roads or Railroads

In 1825, it will be remembered, the House inquired into the expediency of an experiment with macadamized roads and railways.[1] At this time an argument that, all things considered, a system of macadamized highways would best serve the nation would have received serious attention, and when the stage of railway development, together with the state of the country, is reflected upon, it cannot be wondered at. Short-lived and expensive cast-iron rails alone were in use, while it was generally believed that a granite substructure would be necessary. Such being the case, it is not strange that railways were deemed unsuitable to a new and comparatively poor country like the United States; it is little wonder that even so far-sighted a man as Oliver Evans believed that ways like turnpikes were to be preferred ''in the first instance'' to railways.[2]

Furthermore, looking backward, we are more likely to underestimate than to overestimate the power of that vague inertia, conservatism. In 1806, Congress had committed the nation to a policy of road-building, and the great national road was the just pride of the country. An extensive system of post-roads had been established. In short, it was natural that men should be loath to turn from their labor in one direction to move in new paths.

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[1] See above, p. 189.

[2] Above, p. 196.

Of a quite similar nature to this factor, was the widespread feeling that roads were best suited to a democracy, and that railroads were "moneyed powers." This idea has been referred to in connection with canals; it will appear below.

STEAM ON COMMON ROADS

Again, as long as steam locomotion was not contemplated as the chief means of transportation, the field for railways was much restricted, and only with the perfection of the steam engine did the idea that macadamized roads and canals might answer for the nation's internal commerce vanish. The discussion of steam transportation on common roads which occupied a place in congressional proceedings at the first session of the twenty-second Congress may be regarded as a late stage in that evolution by which the railway supplanted the common road and the canal.

This discussion was encouraged by the canal supporters, as well as those interested in turnpikes and the disinterested conservatives, and it was Mr. Mercer, president of the defeated Chesapeake & Ohio canal, who, in 1832, reported a resolution that the report of a committee of the House of Commons of Great Britain on the use of steam carriages on common roads be printed.[3] The English committee had been appointed in 1831 to inquire what tolls ought to be imposed on "coaches and other vehicles, propelled by steam or gas,[4] upon turnpike roads;" what was the present state and future prospects of land carriage by such vehicles; and what utility the public might derive therefrom. On the first point, the committee reported in favor of extending protection to steam carriages at once, to prevent the exaction of excessive tolls by turnpike companies. As to the second question, the matter had passed a doubtful stage, said they, and many successful experiments indicated success. With regard to public utility, they concluded: "These inquiries have led the committee to believe that the substitution of inanimate for animal power, in draught on common roads, is one of the most important improvements in the means of internal communication ever introduced."[5]

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[3] *Cong. Debates, 1831–32,* VIII, Pt. II, 1765. So much of the report on the Chesapeake & Ohio canal as related to the actual and relative cost of canals and railways was added. *Ibid.*, p. 1841.

[4] No such vehicle having been made practical, the report did not consider this kind.

The main objections brought out by the inquiry were:

(1) Insecurity on account of boiler explosions, and breakage of machinery;

(2) Annoyance to travellers with horses from peculiar appearance, noise, smoke and steam;[6]

(3) Wear on roads.

These might be largely obviated, however, by using coke, turning the exhaust through the chimney, and applying broad tires.

The great advantage lay in the higher speed and, it was added, "There is no danger of being run away with, and that of being overturned is greatly diminished."

The committee assumed that for bulky objects, where speed was of little importance, horse traction would be cheapest.[7]

In the debate on printing, in addition to this matter, a report on the relative and actual cost of railways and canals,[8]

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[5] *Exec. Docs., 1831–32*, No. 101.

[6] Interesting in connection with the recent spread of the use of automobiles.

[7] The following summary of evidence was submitted:

1. Carriages can be propelled by steam on common roads at 10 mi. per hour.
2. This has been done with a carriage containing upward of fourteen people.
3. Weight. including fuel, water and attendants may be under 3 tons.
4. Steam carriages can ascend and descend hills of considerable inclination with facility and safety.
5. They are safe for passengers.
6. They are not public nuisances.
7. They will be speedier and cheaper than those drawn by horses.
8. They make less wear upon common roads.
9. Rates of toll imposed have been excessive.

[8] *Cong. Debates*, Feb. 20, 1832, VIII, Pt. II, 1841.

Mr. Cambreling, of Maryland, stated that the idea of locomotive engines travelling on macadamized roads at the rate of from 15 to 20 miles an hour was absurd, adding that railways would also be preferred to canals. At this point Mr. Mercer,—with what may have been delicate irony,—professed himself highly willing to print all the information in favor of railways which the gentleman from Maryland, Mr. Cambreling, might be able to furnish. He insisted on the practicability of introducing steam cars on common roads, by which one-half the present cost of transportation would be saved.

But, just as Oliver Evans' feat in 1804[9] resulted in no introduction of steam carriages, so this agitation in Congress ended in nothing practical. The opinion of Mr. Cambreling was probably that of the majority of congressmen, and nothing of importance with regard to steam road carriages is found in congressional documents after 1832. Aside from its intrinsic interest and its place in the evolution of the steam locomotive, the movement to develop steam transportation on roads is only of significance as a stage in the predominance of the railway over the macadamized highway as a national improvement.*

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[9] Above, p. 185.

* Note on steam carriages: Roughly speaking, between 1820 and 1830, there was much activity directed toward applying steam to transportation on roads, especially in England, where much progress was made. It seemed for a time that this was to be a permanent improvement. Hostile legislation, however, together with railway competition, checked the movement, though not until several practical steam carriages had been constructed and used for commercial purposes.

In this country so much was not accomplished, partly on account of the poor roads, no doubt. Oliver Evans' experiment caused some stir, but no immediate result. *Niles' Register* for Sept. 11, 1819, gives the following notice: "A London paper of July 17 says—'The Americans have applied the power of steam to supersede that of horses in propelling stage coaches. In the state of Kentucky a stage-coach is now established with a steam engine which travels at the rate of 12 miles an hour.' " The index refers to this item as "Steam carriages, etc., wild report respecting."

It will be remembered that the year 1819 was the one in which Dearborn petitioned Congress concerning his project, and the rumor from England might have had this source. This is merely a conjecture.

The same paper in the number for Sept. 11, 1824, contains the following notice, under the catch title, "Steam coach:" Mr. S. T. Conn, of Virginia, announces that he "has made an improvement in the application of steam, which, from its small dimensions and the concentration of power in the generator, gives certain assurance of enabling him to propel carriages on any turnpike or other road which has no uncommon obstruction, * * * and he has ascertained a

THE BUFFALO–NEW ORLEANS ROAD BILL

A sign of the times was the attack upon the proposal in Congress to construct a road from Buffalo to New Orleans. This kind of improvement was referred to as a ''paltry earthen road,'' and as being behind the spirit of the age, which demanded railways.[10]

THE MOVEMENT TO CHANGE THE CUMBERLAND ROAD TO A RAILWAY

But more significant was a proposition made in 1836 to change the western extension of the great National Pike or Cumberland Road to a railway. After 1830 the growth of railways was very rapid, and we have seen that some time before the close of the succeeding decade they had found favor over canals. As they extended they came into more close and general competition with turnpikes and stage companies, which inevitably succumbed where such was the case, making clear the relatively limited sphere of the older methods of transportation. This appeared first in the eastern states, and in Pennsylvania the limitations of the Cumberland Road were early seen.[11] By 1836 it was more generally recognized, and the springing up of many railway corporations with projected lines in proximity to the western portion of the road naturally gave rise to the question as to the future utility of a turnpike as well as to its relative cost.

The proposition to adopt a railway for that part of the Cumberland Road lying west of Columbus, Ohio, originated in connection with a senate bill[12] for the continuation of the road

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method of guiding the carriage which obviates the necessity of rail-ways." He proposed to establish a coach between Washington and Alexandria or Baltimore, desiring to prove the merit of his invention at the capitol.

For further discussion, in addition to the *Report on Steam Navigation,* see Thurston, Robt. H., *A History of the Growth of the Steam Engine,* pp. 157–171; and Armroyd, Geo., *International Navigation of the United States* (published anonymously, Phila., 1830), p. 590.

[10] *Cong. Debates, 1829–30,* Mar. 25, 1830, p. 669.

[11] Hulbert, *Historic Highways,* X, 84.

[12] *Bill No. 64, Sen. Jour., 1835–36,* p. 79; *Cong. Debates, 1835–36,* p. 723.

in the states of Ohio, Indiana and Illinois and it occupied considerable space in the proceedings of the first session of the twenty-fourth Congress. The movement for a railway was connected with an effort to greatly cut down the appropriations,[13] and this fact, in addition to scanty material, makes it impossible to draw sharp conclusions as to the extent to which Congress favored the change. Nevertheless, certain general tendencies will become clear.

At the very beginning of the discussion, it was urged that the cost of constructing a macadamized road through this level country where stone was scarce would be greater than that of a railway;[14] and this argument was not met save for so much of the road as lay in Indiana, where a great part of the grading had been finished, and, being adapted to macadamizing, could not be altered without much expense. Mr. Clay remarked that even if a macadamized road was to be made, it would be cheaper to build a railway, too, for the purpose of transporting stone for the macadamized road (!).

The following amendment, proposed by Mr. Clay, was carried by a vote of 30 to 14: "provided the expenditure of that part of the appropriation to be made in the state of Illinois shall be limited to the graduation and bridging of said road, and shall not be construed as pledging Congress for future appropriations for McAdamizing said road."[15] With this limitation and reduced appropriations, the bill passed the Senate. Obviously the significance of the amendment in this connection lies in the fact that it left the substitution of a railway possible.

It now becomes necessary to drop the thread of this bill for the moment, in order to notice similar developments in the House. This body had resolved on February 11, 1836, that the secretary of war should lay before it an itemized account of the cost of constructing the National Road; "also the relative cost of substituting a rail-way for a McAdamized road, * * * and the relative expense of the future repairs of such railway or road;" and an account of the system of contracting for the work.[16]

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[13] The appropriations were cut down considerably. See *S. J., 1835–36*, pp. 202, 213. A motion by Mr. Clay to cut down the appropriation for Indiana was lost, however.

[14] *Cong. Debates, 1835–36*, p. 724.

[15] *Ibid.*, Ohio, Indiana, Illinois and Missouri were solid against the amendment. New Hampshire. New York, Pennsylvania, North Carolina, Georgia, and Tennessee were divided. The northwestern states would naturally fear that this meddling with the matter might leave them no road at all.

In accordance with this resolution, a document was submitted on April 20, which contains, besides an account of the method of contracting and tables of relative cost, some important remarks.[17] Reference was at once made to the existence of railways in the region, though the point emphasized was not the competition to be feared, but rather the advantages of an all-rail route. Railways already projected would connect Baltimore with Columbus, a railway connecting Cleveland with Columbus had been recently chartered, while at Springfield, O., the road would be intersected by the Lake Erie and Mad River railway, and a railway chartered from Springfield to Cincinnati, where it would meet the projected route to Charleston, S. C. Thus, if a railway were constructed it would not only afford a uniform through route to the West, but also form part of an extended system north and south, the implication being that a common road would fill no such function.

After describing the construction proposed, the report concludes, "Assuming as data the recent performance on the Baltimore & Ohio rail-road of one of the locomotive engines belonging to that company, by which higher grades were overcome than any to be surmounted * * * nearly the whole difference of cost in the items of graduation, masonry and bridging in favor of the McAdamized road, would disappear."

The cost per mile was estimated at nearly $13,000, which was less than the estimate for the macadamized road, but as some progress had been made on the latter the change to a railway would have meant a slightly greater expense.[18] The annual expense for repairs on the railway, however, was estimated at less than 56 per cent. of that on the road.

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[16] *H. J., 1835-36*, p. 328.

[17] *Exec. Docs., 1835-36*, VI, No. 230, p. 6 ff.

[18] About 20 per cent.

Meanwhile, the Senate bill for the continuation of the Cumberland Road had come to the House, where it was referred to the committee on roads and canals, and that committee reported an amendment to change the road from a macadamized road to a railroad.[19]

The chief reason given for the amendment was based on the relative cost of roads and railways, it being stated that the level nature of the land and the great cost of hauling stone for the road made a railway cheaper, and the estimates given above were cited. Companies engaged in constructing aqueducts had actually found it cheaper to build railways merely for hauling their materials. Repairs would be less by one-half.[20]

The committee did not base its judgment on cost alone, however. It stated its belief in the "vast superiority of railways over the best turnpikes," adding that: "On this subject the public mind is believed to be settled."

The report refers to the advantages of a through rail route to the West, dwells at length on the military utility, and mentions general social benefits.

The principal speech on the proposed amendment was made by Mr. Jackson of Massachusetts,[21] and the main argument was that the progress of steam transportation had been so great since 1820 that common roads had become only of local importance. Science and ingenuity, said he, had opened far better means of communication which would take through traffic away from mere roads, hence the latter would be futile in furthering the original purpose of Congress for creating an effective bond between the East and the West. Point was given to his argument by the fact that Mr. Lane of Indiana had stated that, even though railways were better, if the people of Ohio, Indiana and Illinois preferred a road, they ought to have it regardless of the wishes of other sections. In a word, the road could only be regarded as a sectional or local improvement, and so could not fairly claim a national appropriation.

Mr. Jackson stated that official investigation proved that a double track railway could be constructed for $12,238 per mile, which was considerably less than the cost of a macadamized road, and that it could be kept in repair at half the cost.

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[19] *Cong. Debates, 1835–36,* p. 4495.

[20] *Rep. of Com., 1835–36,* III, No. 671.

[21] *Cong. Debates, 1835–36,* p. 4495.

The cry that the railway was monopolistic and undemocratic,[22] that a real "people's road" was wanted, he met by asking who would carry these sentiments so far as to pay $3.50 for an uncomfortable jolting of six or eight hours over the road from Washington to Baltimore in preference to an easy ride of less than three hours by rail at a cost of only $2.50.

In spite of these arguments, however, the amendment was rejected by the House.

In the same session this subject came up again. The committee on roads and canals having reported a bill for the extension of the National Road from Vandalia, Ill., to the Mississippi river, in which it was provided that the road should be so graded as to permit the laying of rails, that provision was rejected by a vote of 92 to 38.[23] Similar action resulted as to the same provision for the extension to Jefferson City, Mo.,[24] and the bill was laid aside.

This did not end the matter, however, for the discussion was shortly resumed, Mr. Webster of Ohio making the important speech.[25] The substance of his argument was the same as that contained in the speech made by Mr. Jackson. He said that the enterprise of the growing West would not tolerate the slow and tedious stage coach, and that the railway would not only be a speedier, but a cheaper means of travel. Rivers would remain the highways of commerce,—canals he considered as tributaries to rivers,— but for travel railways were "incomparably superior to the best macadamized roads."

He prophesied that should a road be built, it would soon be paralleled by a railway and be relegated to use for local transportation from village to village. Notwithstanding his statement concerning rivers as the chief highways of commerce, he said that the railway would present an effective competition to steamboat companies on the Ohio river, furnishing a speedier and more continuous service.

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[22] See below, p. 247 ff.

[23] *Cong. Debates*, 1835-36, p. 4501.

[24] *Ibid.*

[25] *Ibid.*, p. 4540.

Mr. Webster referred to the military advantage of being able to concentrate troops on the border in a short time, and said that the government policy of congregating the Indians west of the Mississippi made this feature especially important.

The main line of argument seems to us, with our later knowledge, unanswerable, but the conservative element triumphed, and the original bill for a macadamized road was passed.[26]

Some of the arguments of those who opposed the change to a railway may be gathered from the speeches of those who favored it, though no more direct account is to be found in the records of debates. For instance, it appears that objection was made on the ground that the railway could not be used by emigrants. Streams of emigrants were pouring westward, and supporters of the original road bill said that such a highway as they proposed would best convey these travellers. Such an objection was easily answered by pointing out that the cost of migrating by rail would actually be less, in that there would be a great saving in time, and so in the consumption of provisions, and like costs.

Again, resistance came from certain towns along the route of the road, the tavern-keepers especially fearing that the stream of travel, if borne upon so rapid a conveyance as the railway, would sweep past their doors without halt.[27]

These, together with the anti-monopoly, ''people's road'' cry, are the only objections to be found, however; and as it seems they could hardly have determined the deliberate action of Congress,[28] we must attribute the rejection of the proposed adaptation of the road to railway construction as being largely due to a general spirit of conservatism.[29] It is probable, too, that the states most concerned feared that any tampering with the appropriations might cause delay or the entire abandoning of the road, and, as has been observed, the fact that a movement to adopt a railway was associated with one to cut down the appropriations would lead to opposition to the whole change. Even those who favored a railway would take half a loaf rather than none.

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[26] Vote stood 104 to 82, the important opposition coming from the South.

[27] This was a just fear. The route of the old pike is to-day lined with dead towns. In those days of stage travel the inns along the roads were numerous and those interested in them formed a large and relatively influential class. The introduction of railways caused complaint of numerous persons engaged in staging and stage-taverns, and sympathy for them was very wide-spread. (See Stimson, A. L., *History of the Express Companies and the Origin of American Railroads*, N. Y., 1859, p. 29.)

[28] Jacksonian democracy was predominant, however, and the "people's road" argument is on a par with the other political cries of the time. It probably had considerable weight.

Thus, while we cannot measure the sentiment of Congress quantitatively, we may conclude that it was realized that the railway was more efficient than a turnpike, and that roads could not be considered "national improvements." In 1838 the last appropriation for the Cumberland Road was made, and it was never completed.

Railways Supersede Turnpikes in Mail Service

On July 7, of this same year, an act of Congress constituted every railway in the United States a post route. This fact is of much importance in that it was thought for some time that roads would remain best suited for mail service. Indeed, the history of the mail service has been divided into two periods, based on the importance of railways as a means of conveyance:[30] the dividing year is placed at 1834, when railways were beginning to be used in a small way for mail.

In a list of mail contracts made in 1831 for the three years following, no mention was made of railways.[31] Not until 1834 do the annual reports of the post office speak of railways as mail carriers,[32] but in that year the following reference occurs: "The multiplication of railroads in different parts of the country promises, within a few years, to give great rapidity to the movement of travellers, and it is a subject worthy of inquiry, whether measures may not now be taken to secure the transportation of the mail upon them.''[33]

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[29] Final action was taken at the close of a crowded session, and this must be reckoned a factor in determining the fate of the amendment.

[30] See a *History of the Railway Mail Service, Sen. Exec. Docs., 48th Cong.,* 2d sess., No. 40, p. 11. This is a documentary history compiled by the postmaster-general in response to a Senate request. This is a valuable source.

[31] *Ibid.*, p. 25 Submitted in the House, April, 1832.

[32] It should be observed that contractors for the delivery of the mail used the railway from the beginning.

In 1834 there were less than 700 miles of railway in the United States, and the average rate of speed[34] was not much greater than that attained by horses on good roads, contracts for mail delivery by the latter means being made which required from 8 to 15 miles an hour.[35] Contracts were sometimes awarded stages as making better time.[36] As late as April 30, 1835, a letter addressed to a mail contractor refers to irregularities on the Camden & Amboy, and concludes: ''From the experience we have had, the adaptation of the railroad to purposes of mail transportation is becoming every day more and more questionable.'' An earlier communication had implied a threat to go back to stage service.[37]

This attitude, however, was of short duration. In 1835 and 1836, contracts with railways became frequent.[38] In 1835 Amos Kendall, the postmaster-general, wrote that to be forced to abandon railway mail service and resort to stages would cause this important branch of government activity to ''sink into contempt;''[39] and on July 7, 1838, all railways in the country were constituted United States post routes.

Citizens of St. Augustine Ask for a Railway

In concluding the discussion of the change from roads to railways, a petition[40] of the citizens of St. Augustine, Fla., may be instanced as a further illustration. Congress had voted an appropriation for a road to connect Picolata with St. Augustine. This, however, did not satisfy certain citizens of eastern Florida, and they accordingly memorialized Congress, asking that the appropriation be applied to the construction of a railway over the same route.

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[33] *Ibid.*, p. 26.

[34] See above, p. 201.

[35] *Sen. Exec. Docs., 48th Cong.*, 2d sess., No. 40, pp. 15-18.

[36] *Ibid.*

[37] *Ibid.*, p. 26.

[38] See *Ibid.*, p. 28. This was, of course, partly due to the rapid extension of railways.

[39] *Ibid.*, p. 132.

[40] *H. J.*, *1838-39*, p. 286.

As in the case of the Cumberland Road, this agitation led to no change. A counter memorial was presented. Congress did not act upon the matter.

General Summary and Conclusion

As the case of the Baltimore & Ohio railroad *versus* the Chesapeake & Ohio canal was typical of the general status, so here, the proposition to make a railroad over the route of the National Road is characteristic of the time. Congress began by inquiring into the relative cost and utility of roads and railroads in 1825. By 1831 steam had become the important factor in transportation and its application to common roads was agitated. This shows a tendency to adhere to turnpikes, though perhaps a majority of men realized the superiority of railways. In 1836 there was a strong movement in Congress to substitute a railway for the National Road, and it did not fail because a railway was believed to be inferior to the macadamized road. Indeed, we are warranted in concluding that by this time the railway had practically superseded the road as a national improvement. It was the turning point. In 1838 the last appropriation for this road was made. In 1839 there was an effort to alter an appropriation for a road in Florida.

As one turns over the indices of the journals of Congress, he is struck by the sharp decline in the frequency and importance of measures concerning roads, both post and military, which occurs about the year 1840; and, though it practically came nearly five years earlier, we may name that date as marking the time when railways clearly superseded roads as a national improvement.

CHAPTER VI

THE RAILWAY AND SOCIETY

The aim of the present chapter is to trace from the utterances of congressmen and from congressional documents the development of ideas concerning the effect of railways upon society and government; and to give a general resumé of the relations which were assumed to exist between railways and the economics and politics of the country. Some of the facts to be presented have appeared in the preceding chapters, but they are now made the basis for conclusions of a different order.

We know that with the introduction of the railway there came a new factor into the life of the nation, and of the world, which radically affected all phases of that life. The railway is both quantitatively and qualitatively different from other and earlier means of conveyance and communication. But was this apparent to the men, and especially the congressmen, of the early nineteenth century? On the whole, it may be said that it was. Almost from the beginning it was quite generally recognized that the laws governing the operation of the railway were different in important repects from those applying to canals and turnpikes. This statement, however, needs qualification,[1] and only after 1840 when the railway had superseded canals and roads in Congress, is its truth most clearly apparent.

Railways Different From Canals and Turnpikes in Social and Economic Effects

The differences between canals and railways were brought out fully in the discussions of 1831 and 1832. At that time the effects which these differences must have on social and economic[2] conditions were discussed in Congress.

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[1] See below, pp. 248, 260 ff.

1. *Facility of construction and wasteful competition.*

In the first place, the relative facility with which railways could be constructed, and the fact that they were not so limited by topographical conditions made important differences. It was thought by some men that any farm or town that desired a railway would readily be accommodated, and that this would lead to a wasteful multiplication of routes that would cause loss to all. Thus, Josiah White, in a letter which was submitted by the Chesapeake & Ohio Canal Company in support of a memorial,[3] said, ''I think it rather fortunate for society, that railroads are not of equal value to the canals, for a railroad can be taken anywhere, and consequently, no improvement would be safe on this line, for the moment the improvement succeeded, it would be rivaled, so as to destroy both.'' White even expressed a fear that tenure or value of property would be rendered insecure as a result.

This less limited scope and difference in competitive nature, of course, made a distinction between railways and canals, rather than turnpikes. It should be observed that this idea of competition was but a speculation or prophecy, and that it was not based upon any existing condition of ''cut-throat competition'' among railroads. At the time[4] White wrote there were only about 200 miles of railway in this country, and well down to the close of the first half of the century railway capital was relatively scarce and unproductive,[5] so that such a state could not well exist.

Nor was it based on a supposed analogy between railways and roads, for such a degree of competition does not seem to have been prevalent among turnpikes.

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[2] It seems to the writer unfortunate that the adjective, economic, does not alone express the idea to be conveyed. It should do so. The German compound, socio-economic, might be used.

[3] *Exec. Docs., 1831-32*, No. 18, p. 166 ff.

[4] 1832.

[5] See Tanner, H. S., *A Description of the Canals and Railroads of the United States* (N. Y., 1840), p. 22 ff.

2. *Railways "monopolistic."*

But while some feared undue competition among different railways, it was commonly recognized that each railway formed a "close monopoly, and not a public highway."[6] This seems to be a contradiction of ideas. By a monopoly, however, was meant not one existing between different railroads, but one which consisted merely in the exclusive right to use the railway which the company owning it possessed. The charter of the Falmouth & Alexandria Railroad Company stated that "upon the rail-road hereby authorized the company shall have the exclusive right of transportation,"[7] other charters empowered the railway companies to prescribe time and manner in which transportation services should be performed,[8] and others still provided that only such vehicles as the company might allow should operate upon its railway.[9]

It was such conditions that caused Benjamin White, engineer, to write, in a letter appended to a congressional document, "I consider a long line of railroad passing from Baltimore over the mountains * * * as being odious in this country as a monopoly of the carrying, which it necessarily must be;"[10] and he observed that a canal was open to any man who built a boat to navigate it as he chose. It was this that Mr. Bouldin referred to when, in a debate on the re-organization of the Post Office, which occurred in the House in 1836, he said that he would vote for any check that could be put upon the monopoly of the railroads. In the same year Mr. Jackson represented the opponents of railways as crying, "A railroad is a monopoly!"[11]

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[6] *Exec. Docs., 1831–32*, I, No. 18, p. 197.

[7] *Rep. of Com., 1837*, No. 238, Sec. 23.

[8] *Sen. Docs., 1845–46*, V, No. 295, p. 5, Sec. 6.

[9] *Rep. of Com., 1836–37*, I, No. 121, Sec. 5. The charter of the Baltimore & Ohio R. R. contained a provision to this effect. It indicates that in the transition to railways there was a tendency to think of railways as being similar to turnpikes.

[10] *Exec. Docs., 1831–32*, No. 18.

[11] *Cong. Debates, 1835–36, H. of R.*, p. 4495. The following extract from a western paper is typical: "* * * * nor do we wish to see our Legislature rush headlong into the granting of monoplies (i. e., R. R. charters), which * * * * would embarrass Wisconsin in her future Internal Improvement operations, and paralyze the efforts of her people. We wish to see the utility of chartered monopolies before they receive our sanction." Milwaukee *Advertiser*, Sept. 15, 1836. See Meyer, B. H., *Hist. of Early R. R. Legislation in Wis.*, in *Wis. Hist. Coll.*, XIV.

There is ground for an argument that effective competition was not expected to exist between railways, or between railways and other means of transportation. Early railway charters in England did not fix maximum rates for the conveyance of passengers, and this has been taken to indicate a belief on the part of Parliament that competition would keep rates down.[12] Now, quite commonly the early charters in the United States fix such maximum rates, and the act of Congress authorizing a branch of the Baltimore & Ohio to Washington did so. This, at a time when such was not the practice in England, would seem to indicate an early belief that competition among railways would not be effective.

In any case, it is clear that, while many conceived that there would be competition as between different railways, it was accepted that there would be monopoly on any one railway, and this fact made a profound difference between the railway and canals or roads. To us it seems very commonplace, but to those who were familiar with no other means of transportation than canals and roads, upon either of which any individual might, with few restrictions, place his own vehicle and use his own motive power, the change was highly significant.

That in practice the railway could not be a common carrier in the sense that waterways and highways were common carriers was realized almost from the beginning, and this involved a different attitude. Toward railways the people and their representatives would be more hostile, or more suspicious, to say the least; they would be more apt to control. A tendency toward regulation soon arose, as will appear in a later section.

RAILWAY MONOPOLY IN NEW JERSEY*

At the first session of the thirtieth Congress there was presented the memorial of a large number of merchants of New

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[12] See Acworth, *The Elements of Railway Economics*, pp. 108–110, for a convenient reference on this point.

* The Camden and Amboy furnishes a classical example of monopoly in the field of railway transportation. In 1830 the Camden and Amboy Transportation

York City asking relief from the evil effects of a railway monopoly.[13] The Camden and Amboy Railroad Company, together with the Delaware and Raritan Canal Company, had, it seems, been granted exclusive transportation rights in New Jersey by the legislature of that state, and as the road occupied the direct route between New York and Philadelphia it was in a position to work much harm to the commercial interests of those communities. The memorialists prayed that Congress interfere for their relief. They stated that in 1832 a grant had been made giving the above mentioned companies the "exclusive right of transporting passengers and goods * * * through the state of New Jersey," for which right the state was given a bonus of a number of shares of the company's stock and in addition was to receive 10 cents for every passenger and 8 cents for every ton of commodities conveyed by it through the state. An annual tax amounting to some $30,000 was imposed.

In 1837, so the memorial runs, the companies were authorized to charge a $4 fare for transporting a passenger across the state by day, and $5 if by night, the state to receive one-half the amount left after deducting $3 from the fare. The distance being about eighty-five miles, the average fare thus authorized was nearly 5.3 cents per mile. This rate, however, was not uniform, for the companies were restricted from demanding

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Co. and the Delaware and Raritan Canal Co. were chartered. The outlook for the canal company was poor, but under cover of an amendment to its charter empowering it to widen its canal the company got the right to build a railway, and so forced the Camden and Amboy to consolidate. The United Company of New Jersey was thus formed. Another line was started between Philadelphia and Jersey City via Trenton, but in 1836 this rival project was nipped in the bud by securing control of the line from Philadelphia to Trenton. The system also came to control steamboat and ferry lines. By using undue influence it escaped payment of a large part of its obligations to the state, and secured renewals of its charter, till in 1871 it became a part of the Pennsylvania system.

This railway was one of the few that was profitable in the early days. Its net gain in 1840 amounted to $427,286.28. In 1855 it paid a 12 per cent. dividend.

Its abuses were attacked by the economist, H. C. Carey, in 1848, but, though he made a clear case, the agitation brought no result.

See Tanner. H. S., *Canals and Railways of the U. S.*, index.

See Larrabee, *The Railroad Question*, p. 102 ff.

See Ringwalt, *Develop. of Systems of Trans. in the U. S.*, index.

[13] *Cong. Globe*, 1847–48, XVIII, 823.

over 3 cents from any way passenger even though he travelled over the entire line. In other words, inhabitants of New Jersey had an advantage over through travellers. This discrimination, the memorialists complained, was not only unjust but also unconstitutional, as the constitution provides that "the citizens of each state shall be entitled to all the privileges and immunities of citizens in the several states."

Furthermore, Congress was asked to interfere under its power to establish post roads. The great southern mail passed over this route and it was greatly delayed by the arbitrary practice of not forwarding mails until passengers could also be taken, the company holding the mail at Philadelphia from two o'clock in the morning until nine in order to kill two birds with one stone. "This delay in the transmission of the mail * * * was a source of great inconvenience to the commercial community, and was utterly inexcusable; but they and the Government must submit to it, because the railroad company would consult alone their (own) interest and conscience." As no restriction upon rates of charge existed and the company had a monopoly the government was liable to exorbitant demands.

Hence Congress was asked to intervene "for the double purpose of effecting greater economy as well as producing greater speed in the transmission of the mail on this important route."

To the proposal of government intervention there were two chief lines of objection: Mr. Jones (Tenn.) argued that redress should be obtained through the courts; Mr. Venable (N. C.) believed that as Congress had no right to walk to the house of the citizen and say to him, every question that arises between you and your legislature we will regulate, so now it could not go down into New Jersey and "hold this company *in terrorem,* and regulate its tariffs of tolls." Clearly the states' rights doctrine spoke here.

Mr. Venable moved that the memorial be laid on the table, but his motion was lost by a vote of 60 to 67 and the matter was referred to the committee on post office and post roads.[14]

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[14] No further action appears to have been taken.

3. *Railways "undemocratic."*

Closely connected with the monopoly idea, was the objection that railways were less "democratic" than canals and roads; that is, they were held by some to be out of keeping with our ideals of republican simplicity. The same Josiah White quoted above stated that railways were "vastly inferior (particularly as a public work, and in a republican country) to canals, both as to conveyance as well as to economy." There can be no doubt that this idea played a part in the attitude of people and Congress toward railways.[15]

This idea and its causes are brought out most clearly in relation to the contrast that men drew between railways and turnpikes. In the debate on the proposition to change the Cumberland Road to a railway it appears that some members of Congress were objecting that, as their constituents were plain, honest men, they wanted common roads.[16] Let gentlemen of wealth and aristocrats build railways and travel on them, said they; our constituents "are all democratic republicans," and they want a road on which they can all travel together; "no toll, no monopoly, nothing exclusive,—a real 'people's road'!"

As has already been pointed out,[17] during the era of Jacksonian Democracy such ideas as the preceding were rife. They led to the attack on the Second Bank of the United States which ended in the overthrow of that institution. Like banking, the railway business required considerable capital, a corporate form, and, more particularly, it required restrictions and limitations upon the manner in which it could be set up and used. It was a monopoly in a sense that canals and turnpikes were not. Thus those sections of the country in which the "moneyed power" was regarded as a menace to the nation would oppose railways,—as would their representatives in Congress.

Furthermore, although canal and turnpike companies possessed some of the above objectionable features, they had been in existence a long time before Jackson and the element which he represented, and men were familiar with them.

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[15] See above, p. 237 and note.

[16] See *Cong. Debates, 1835-36,* (*H. of R.*), p. 4495.

[17] Above, p. 237 and footnote.

So we may conclude that almost from the beginning, important differences in nature and function were seen to exist between railway and canal or turnpike, which differences led to the expression of various hopes and fears and beliefs concerning the effect of the new device upon the economics of society.

Railways Not Regarded as Subject to Same Economic Laws as Turnpikes

In one respect railways were, to some extent, regarded as resembling turnpikes. Well down to 1830 it was commonly thought that any one might put his vehicle upon the railway company's track or "way" and travel in much the same manner as upon an ordinary road. This idea gave rise to the custom of distinguishing "tolls" from transportation charges, a rate being considered as composed of two parts: one a charge for use of the track or way, and another and additional one for transportation.[18] This resemblance is easily over-emphasized, however, and has been exaggerated.[19]

From the earliest mention of railroads in Congress, it was seen that specially constructed cars would be necessary,[20] and this resulted in the practical exclusion of all but the transportation company. Moreover, as has appeared above, early charters provided that railway companies were to have exclusive rights, and while such provisions indicate by their existence that the use of railways after the fashion of turnpikes was considered as a possibility, this possibility was but a legal theory.[21] The use of edge rails made special wheels necessary, and the development of steam locomotion removed the last chance of a possible use by individuals of their own means of transportation.

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[18] See above. p. 209.

[19] Hadley, *Railroad Transportation, its Origin and its Laws*, p. 40: "Until about 1850 it was assumed that the railroad business was subject to the same laws as any other business, and in particular to the so-called law of competition." On p. 12 he states that in 1850 it "began (!) to be seen and felt that a steam railroad was something more than an exaggerated turnpike or horse railroad * * * *."

[20] Above, p. 183. Latrobe considered this a limitation upon the railway's utility.

[21] At the beginning of railway transportation in England rails were adapted to ordinary road vehicles. With the use of edge rails and steam locomotion this

Most emphatically a railway was regarded even in 1830 as a "monopoly of the carrying." What has been written in the section on monopoly[22] makes it clear that men saw that ordinary business laws did not entirely apply to the railway.

Railways and the Union

From very early times it was predicted by those who advocated railways that this means of transportation would open and extend markets and form an effectual bond of union among the states. Stevens expressed this idea, and laid emphasis on reduced cost of transportation:[23] one of the chief arguments for government aid to railways was based on their benefit in binding the sections of the country more closely together.

There were thus the economic and the political aspects of the same idea. On the one hand, the facility of railway construction, together with its relative freedom from limitation by topographical conditions, caused hope that railways would open new markets and prevent gluts and scarcities by more quickly and cheaply equalizing demand and supply; on the other hand, statesmen and demagogues alike voiced the idea that this new and rapid means of conveyance would lead to social and political unity.

Both Washington and Madison laid emphasis upon the necessity for developing internal transportation facilities,[24] but they could look forward to canals and turnpikes only. President Jackson, however, in a message to Congress,[25] suggested other means: "In the construction of railroads, and the application of steam power, we have a reasonable prospect that the extreme parts of our country will be so much approximated,

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became impossible. The whole idea, though it existed in that country to a greater extent than in the United States, soon ceased as a practical force.

[22] p. 243.

[23] Above, p. 206.

[24] Above, pp. 182, 186.

[25] December 6, 1831.

and those most isolated by the obstacles of nature, rendered so accessible, as to remove an apprehension sometimes entertained, that the great extent of the Union would endanger its permanent existence.'' By the close of the third decade the railway was looked to for a solution of the problems arising from the portentous extension of the nation's bounds.

In 1836 it was apparent to many that the Cumberland Road could not fulfill its mission to society and that a railway should be substituted.[26] In debate upon the subject, Mr. Webster (O.) stated his belief that the social and political influence arising from the introduction of railways ''would be happily felt on the character and destiny of the American people,'' and that the connection of the great eastern and western sections by a railway was of the highest importance.[27] He laid stress upon the promotion of social feeling among the different sections.

It is noteworthy that almost without exception each of the many memorials and committee reports[28] concerning aid to railways refers to this social benefit which they confer upon the Union. This will appear more fully in succeeding chapters on land grants.

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[26] See above, p. 232.

[27] *Cong. Debates, 1835-36*, p. 4540.

NOTE: It is interesting to speculate upon the fact that the introduction of railways came at a time so opportune. It may be said that the supply of transportation has kept pace with the demand, though no direct causal connection is apparent. During the time that the population of our country extended in a mere fringe along the Atlantic. roads and canals sufficed. When a population of any density reached to the Mississippi, railways had come. Had this not been the case, development must have been retarded, at least, and who can say if the Mississippi or the Rockies might not have formed our western border?

[28] E. g., *Rep. of Com., 1835-36*, II, No. 525.
Rep. of Com., 1835-36, III, No. 607.
Rep. of Com., 1835-36, II, No. 301.

CHAPTER VII

THE RAILWAY AND SOCIETY—CONTINUED

Railways and the Government

In spite of any fears concerning monopoly and anti-democratic tendencies, the socio-economic advantages of railways early led to investigation, aid, and propositions for construction by the United States Government; while the realization of their harmful tendencies led to efforts at government regulation. The government's desire of having an efficient mail service and of enhancing the value of public lands should also be borne in mind.

Agitation for Government Construction

Even in the eighteenth century, works of internal improvement were regarded as peculiarly related to the government. Canals and roads were fostered by both state and nation, and in 1807 the government entered upon the contruction of the Cumberland Road. There were constitutional scruples, but ideas as to expediency probably predominated in Congress. Such being the case, it was to be expected that early railway disciples would turn to Congress, and it is not unnatural that the earliest attitude of that body looked toward government construction, if not ownership.

In 1812, Col. John Stevens wrote: "So many and so important are the advantages which these States would derive from the general adoption of the proposed railways, that they ought, in my humble opinion, to become an object of primary attention to the national government,"[1] and he suggested an appropriation. Stevens proposed government ownership and operation as well, saying that there could be no doubt as to the power of Congress to lay out and make roads;[2] and in 1825, it will be recalled, a resolution to inquire into the expediency of a government experiment with ''Railways, under the patent granted to John Stephens of Hoboken,'' passed the House.[3]

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[1] *Documents tending to Prove the Superior Advantages of Railways, etc.* (N. Y., 1852), Introduction, p. viii.

Another glimpse of the attitude of Congress may be caught in 1830 when a committee reported in favor of aiding the Baltimore & Ohio Railroad Company on the ground that it might ''afford a fair and satisfactory experiment, on which it can be decided, whether a canal or *rail road* ought to be made over the mountains, *under the auspices of the national* Government.''[4]

Most interesting, as throwing light on the relation of sectional interest to constitutional interpretation, is a memorial[5] presented by the citizens of Adams county, Illinois. This memorial was adopted at a public meeting, and it prayed that a *railroad might be located and constructed by the United States* from Buffalo to the Mississippi river. The same petition was again presented at the following session.[6]

The Senate during its 1834–35 session agreed to investigate concerning the expediency of constructing at the national expense a railway from Jacksonville, Fla., to the mouth of the Suwanee river.[7]

The use of the United States troops in the construction of railways was proposed from time to time.[8]

No further instances are necessary to establish the fact that there was a long-continued tendency,—or agitation, rather,—toward the actual construction of railways by the government, even when the road was to lie within the boundaries of a single state.

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[2] *Ibid.*, p. xi. He admitted doubt concerning canals.

[3] Above, p. 189; see also p. 190. The name is incorrectly spelled in the *Journal.* The following year a resolution was submitted in the House to the effect that the Committee on Roads and Canals be instructed to inquire into the expediency of making a railroad at the expense of the Federal Government. This resolution, however, was not agreed to.—H. J., 1825-26, Jan. 5, 1826.

[4] *Rep. of Com., 1829–30*, No. 211.

[5] *S. J., 1831–32*, p. 67.

[6] *S. J., 1833–34.*

[7] *S. J., 1834–35*, p. 110.

[8] E. g., *Sen. Docs., 1843–44*, II, No. 62, p. 19 ff.

Construction not to Include Ownership or Operation

The question naturally arises at this point as to what was to become of the railway when completed, and this question was put in Congress. Mr. Webster (O.) referred to it in the speech in which he advocated the substitution of a railway for the National Road,[9] saying that there was misconception concerning the matter. His answer to the question was, that whether a macadamized road or a railway was constructed, it would be turned over to the various states within whose boundaries it lay. "If a railroad was constructed," said he, "it would be surrendered to the States, and the States would put their cars under the direction of their agents on it." Just as toll was levied upon those using a turnpike, for the purpose of keeping it in repair, so the state would only charge such rates as would keep railway and rolling stock in efficiency. "Either road," he adds, "would be equally under the control of the States and the people."

In this same year, Senator Grundy, of the committee on post office and post roads, in a report, stated that, while the great advantages of railways had caused some to think that the general government might properly construct and operate them as incident to its power to run mails and provide for the common defence, still this would mean so continual an expenditure that it would be better to leave the expense and trouble to the states and to private companies.[10]

Under the ideas which prevailed in those times as to the proper relations between federal government and the states, some such solution would undoubtedly have resulted, had the tendency to actual construction by the federal government been carried out.

Where, however, government only participated in construction indirectly,—and in practice government participated in this way alone,—as by granting land to a railway company, the question was different. It was deemed necessary only to safe-guard the government interests and, perhaps to secure favorable mail contracts. In the case of a proposed stock subscription, the secretary of the treasury was to see that a government proxy voted the shares.[11] There was practically no question of government ownership and operation.

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[9] *Cong. Debates, 1835-36 (H. of R.)*, p. 4540. See above p. 236.

[10] *Sen. Docs., 1835-36*, IV, No. 291.

But in at least one case this question was discussed as a contingency. In 1836 a bill[12] to authorize contracts for carrying mail upon railroads was up, which bill provided for a lien by the government upon the property of the railroad. Senator Buchanan feared that the government might be compelled to take these roads under its lien, and argued that in such a case it must either continue to operate the road or forfeit its charter. This, he remarked, would be placing us in a most awkward and embarrassing position.[13] The bill was not passed.

There is little doubt that after as early a date as 1822 government ownership and operation became a political impossibility. In that year a bill for repairing the Cumberland Road passed both branches of Congress, was vetoed by President Monroe, and failed upon return to Congress,—a majority of the House sustaining the veto.[14] The significance of this lies in the fact that it involved more than a mere appropriation for repairs: it involved questions of jurisdiction,—of erecting toll-gates, administering tolls, imposing fines upon trespassers, and the like. From this time actual participation by the government in the operation of canals and turnpikes became recognized as a political impossibility, and when the railroad came it found a tolerably well established belief to that effect.

Moreover, the development of a strong "states' right" movement throughout this period would have made such participation difficult, to say the least, and statesmen came to be extremely cautious about provoking such disputes. The wave of nationalism which accompanied the War of 1812 was soon succeeded by the trough of a narrower spirit. This was manifested not only in hostility to the United States Bank,[15] to the tariff, and to the decisions of the Supreme Court,[16] but also by an increasing opposition to internal improvement by the general government. Jackson defeated three bills for internal improvements in 1830, and there is ground for thinking his policy a popular one.[17] Nullification came in 1830.

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[11] This general question will be treated under chapters on government aid. For references, see: *Cong. Debates, 1825-26,* II, Pt. II, p. 2251; *Laws of the U. S.,* VII, 406, 478; *Rep. of Com., 1829-30,* No. 211; *Cong. Debates, 1829-30,* VI, Pt. II, p. 1136; etc.

[12] *Sen. Docs., 1835-36,* IV. Index, Sec. 3 of the bill.

[13] *Cong. Globe, 1835-36,* III, 372. Also M. Mangum.

[14] See *H. J., 1821-22, April 29* and *May 6;* also *Annals of Cong.* and Niles' *Register,* XXII. The bill passed the House by a vote of 87 to 68, and the Senate 29 to 7. Upon being returned with Monroe's veto, it failed in the House, the vote standing 68 for and 72 against.

The Missouri Compromise was followed by a calm, but in the early years of the third decade a slave revolt and the activity of abolitionists fanned the alarm and hostility of the slave-holding South to a fury. The South was solid against Federal activity.[18]

For Some Time Railways Regarded as a Possible Investment

In 1826 Mr. Mercer moved a resolution for a general internal improvement fund, to be invested with joint stock companies, the income from such investments to constitute a special fund for interest on loans and for similar works of a public nature, i. e., roads, railways, and canals.[19] Both the Baltimore & Ohio and the Charleston & Hamburg railway companies made efforts to obtain stock subscriptions from Congress. In the debates on the matter, such a subscription was sometimes treated as an investment by the government.[20] The government had invested in canals, why not in railways? No subscription was made, however.

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[15] 1819–20. Ohio persisted in an attempt to tax the bank, and even withdrew from it the protection of the law.

[16] E. g., 6 *Wheaton*, p. 264. Jefferson, *Writings*, X; *Niles' Register*, XX, 118.

[17] Schouler, *Hist. of U. S.*, III, 480–482.

[18] The attitude of the South is well summed up in a memorial made by the state legislature of South Carolina and presented by Mr. Drayton in 1828. This document remonstrated against, (1) increase of duties for encouraging domestic manufactures, (2) the appropriation of money by Congress for the colonization of free blacks, (3) "the exercise of the general power to construct roads and canals, either with or without the consent of the States". (*H. J., 1827–28*, p. 164).

[19] *Cong. Debates, 1825–26*, II, Pt. II, p. 2551.

[20] See *Cong. Debates, 1829–30*, (*Sen.*, May 22, 1830; *H. of R.*, May 26, 1830).

In cases where aid was given, as in making surveys, remitting duties on railway iron, and making mail contracts, there was some tendency to look at such aid as an investment.[21]

Pacific Railways; Movement for Government Ownership

But no account of this phase would be complete without noticing the case of the proposed Pacific railways between 1845 and 1850. In a memorial to Congress,[22] Asa Whitney proposed government ownership and operation for his projected railway to the Pacific. Senators Benton and Bowlin (Mo.) and Senator Houston (Tex.), each supported in speeches or resolutions the idea of a railway constructed, owned, and operated by the nation, appealing to social and military necessity and hostility to corporate activity.[23]

Mr. Robinson, in a speech replying to the argument of Mr. Bowlin, said, "I am utterly amazed, and have been since I have been noting the proceedings of the national conventions alluded to (St. Louis and Memphis) at the apparent amount of public favor with which such a colossal and gigantic Government scheme is received."[24]

Yet, at this time it was true that but few would have advocated government ownership of railways located in the East. At least two reasons may be given in explanation of this advocacy in the case of the Pacific roads:[25] these roads would be constructed under conditions similar in some respects to those existing in the East between 1820 and 1830, when the first railways were introduced, and there was a strong aversion to entrusting so great and important a work to a corporation. When the first important railways were projected, the fact that they were to bind what was then the far "West" to the East, while they had so many obstacles presented by the newness of the country, made an argument for government participation. So now, when the "West" was pushed back to the Pacific, the same forces were at work. Again the fruits of the hostility toward moneyed powers and the like may be seen in this agitation for government ownership. Those men who believed the corporation a menace would prefer government activity. It will be observed that they would be the same ones who cried out against aristocracy and monopoly, demanding a "people's" road:[26] developments making the railway unquestionably superior to turnpikes, they would still prevent monopoly by making the railway a "national" one.

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[21] See below, pp. 263, 320.

[22] *Sen. Docs., 1844-45.* III, No. 69.

[23] *Cong. Globe, 1849-50,* Pt. I, Appendix, p. 329.
Cong. Globe, 1848-49, p. 472.
It is significant that these were western men.

[24] *Cong. Globe, 1849-50,* Pt. I, Appendix, p. 333.

[25] Below, Book III, Chapter XXIII.

It is hardly necessary to add that those sections which expected to directly profit by a railway to the Pacific—or any railway—would tend to lean toward a broad interpretation of the powers of Congress, if it was thought that government construction was necessary to the existence of the road; and when, as in this case, the road was to lie almost entirely without the boundaries of the states and to extend over public lands, the tendency was the stronger.

MOVEMENT FOR GOVERNMENT OWNERSHIP NOT GENERAL

It must not be supposed that this movement for government ownership was a general one, nor would we convey that impression. The Pacific roads were not constructed by the government; much less were they owned or operated by it; and there were strong arguments advanced in Congress against the proposals of Benton and Bowlin. Thus Senator Robinson, in the speech already alluded to,[27] reasoned that if the government undertook the project, it would result in inefficiency and corruption. There would be lack of responsibility. It would be a "political monstrosity." Mr. Robinson states that the idea "meets with little encouragement from either Whigs or Democrats."

This conclusion might have been drawn, indeed, at an earlier time, from the words of Asa Whitney's second memorial to

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[26] See above, p. 247.

[27] Above, p. 256. See *Cong. Globe, 1849–50,* Pt. I, Appendix, p. 333 ff.

Congress. He states that in his previous petition[28] he had favored leaving the railroad when constructed to the management of the general government and the wisdom of Congress; but, "objections having been raised that our institutions and form of government will not allow the carrying on or management of a work of such vast magnitude," he now proposes that he himself and his heirs undertake the operation of the road.[29]

Government Regulation

Of more practical interest than speculations, proposals, and agitation for government construction or ownership, is the history of ideas in Congress as to government regulation. The recognition of the advantages of railways led to the former movement; the realization of their harmful tendencies brought about the latter.

1. *In the District of Columbia*

We may at once take up a concrete case of regulation. In an act of Congress approved May 9, 1828, the assent of that body was given to the construction of a railway from Baltimore to Washington, and authorizing it to exact such tolls and enjoy such benefits and privileges as were allowed by its Maryland charter.[30] This seems to be a preliminary step toward the construction of a lateral branch of the Baltimore & Ohio railroad to Washington.

In 1831 we find Congress debating a bill for the authorization of a lateral branch of the Baltimore & Ohio into the District of Columbia, and on January 4 of that year, Mr. Semmes (Md). submitted three amendments to the following effect:

1. Said road shall have such location and direction as engineers appointed by the government shall decide upon.

2. Said company shall not make any higher rates of charge than are allowed by law upon the Baltimore & Ohio railroad for transportation from West to East.[31]

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[28] *Sen. Docs., 1844-45*, III, No. 69.

[29] *Sen. Docs., 1845-46*, IV, No. 161.

[30] *Cong Debates, 1827-28*, IV, Appendix, p. xiv. Such an act was necessary, inasmuch as Congress has sole control in the District of Columbia.

[31] See above, p. 211.

3. The road shall be commenced within one year and completed within three years.[32]

As finally passed, the act of authorization[33] embodied these ideas, but longer time and higher rates were allowed. Its principal regulations may be briefly summarized:

1. Privileges granted by the Baltimore & Ohio's Maryland charter were confirmed.

2. Provisions were made for acquiring right of way, and for street and road crossings; the company was not to enter upon any government lot[34] nor to interfere with canal ways.

3. Maximum rates of toll were fixed and prescribed, special rates on small shipments being authorized.[35]

4. Construction was to begin within a year and be completed within four years.[36]

5. The company was to build but one such branch, and it was expressly provided that similar privileges were open to Virginia or Maryland companies or "Congressional incorporations."

Thus, between 1828 and 1831, in its capacity as sovereign power within the District of Columbia, Congress was brought very directly into contact with the railway problem; and, closely following an act of incorporation by the state of Maryland, restrictions and regulations looking to the social welfare were adopted.

2. *The transportation of the mail*

But the government came into contact with the railway in another and a broader field. In fulfilling its function of distributing the nation's mail, it early had recourse to railways, and many and long were the disputes between the post office department and the railway officials,—over rates and conditions of transportation.

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[32] *Cong. Debates, 1830–31,* (*H. of R.*), VII, 400.

[33] The act as passed was a Senate bill. It passed the House Mar. 1, 1831: see *Cong. Debates, 1830–31,* Appendix, p. 52.

[34] At this time the federal government owned much property in Washington.

[35] See above, p. 211.

[36] This act expired of its own limitations before the road was built, and it was renewed by an act of Feb. 26, 1834.

Early mention of railways in Congress nearly always referred to their advantages for transporting the mails. Indeed, this was among the strongest arguments of those who supported congressional aid for railways.

Very early, however, the exactions of railways, real or supposed, made necessary regulation by Congress. In fact, this necessity was foreseen. In February, 1832, DeWitt Clinton, U. S. C. E., made report upon a survey for a railway from Portage Summit, O., to the Hudson river, in which he stated that it was reasonably to be expected that New York, Philadelphia, Baltimore, and Washington would soon be connected by railway, and numerous mail routes be opened throughout the country. ''If the United States should not, therefore, be able to secure an interest in these works, or be able to control them, the transportation of the mail will be monopolized,'' or be forced to resort to slower and more uncertain transportation over roads.[37]

In 1831 President Jackson, in a message, referred to railways as a beneficent institution.[38] By 1835 the development of the situation in regard to mail service was such that he used the following words, which must be quoted to be appreciated: ''Already does the spirit of monopoly begin to exhibit its natural propensities, in attempts to exact from the public * * * the most extravagant compensation. If these claims be persisted in, the question may arise whether a combination of citizens, acting under charters of incorporation from the states, can, by a direct refusal, or the demand of an exorbitant price, exclude the United States from the established channels of communication between the different sections of the country; and whether the United States cannot, without transcending their constitutional powers, secure to the post office department the use of those roads, by an act of Congress which shall provide within itself some equitable mode of adjusting the amount of compensation.''[39] He suggested that the amount to be paid for the transportation of the mails be fixed by law.

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[37] *Exec. Docs., 1831-32,* No. 133, point No. 84.

[38] Above, p. 249.

[39] *Message of President Jackson,* Dec. 7, 1835. *Acts of Cong.,* 24 Cong., 1 sess., Appendix, p. 11.

These are strong words—such as might have been expected from Jackson. But in the very same month Amos Kendall, the post master general, spoke in a similar vein. He called attention to the fact that the Constitution gave Congress power "to establish post-offices and post-roads," and asked whether a railway being established by Congress as a post-road, it would be possible for the company to obstruct the carriage of the mails? Whether, in case a railway company did so,—either directly, or indirectly by adopting "unreasonable" rates and inconvenient hours,—the government might not place its own locomotives on the road, and so fulfill the law?[40] Kendall's words suggest broad vistas of government intervention, and especially those in which he refers to "rights which the government may have to use railroads owned by private companies for public purposes,"[41] saying, however, that it was not necessary to press such claims upon the companies.

It is noteworthy that the attitude of Congress and statesmen was one of prudent hesitancy as to pushing the matter of interference. Jackson said the question *may* arise; Kendall hoped it would not be necessary; in 1836 the Senate committee on post office and post roads reported: "It is prudent, if it be practicable, to avoid the question altogether."

This was but the beginning of a long struggle. We find President Tyler denouncing railway exactions for mail service and stating that some measure might become necessary to guard against them.[42] In 1838 all railways were made post routes, and the postmaster general was directed to have the mail transported upon them if it could be done "upon reasonable terms;"[43] in 1839 maximum rates were fixed by Congress;[44] and in 1845 a comprehensive act was passed which divided railway routes into three classes on the basis of speed and importance, and fixing maximum rates for each class.[45]

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[40] *Report of the Post Master General,* Dec. 1, 1835.

[41] *Ibid.*

[42] *Sen. Docs., 1841-42,* I, No. 1, p. 15.

[43] *Exec. Docs., 1847-48,* II, No. 8, p. 1319.

[44] *Ibid.*

[45] *Acts of Cong.,* 28 Cong., 2 sess., chap. 43.

One interesting phase of the struggle to regulate railways in their transportation of the mails was the idea of fostering competition. This idea gained some prominence. Thus in 1836 Senator Benton, in debate over the subject of railway mail contracts, stated his opinion that Congress ought not to surrender so quickly,—agreeing that they could not get along without "these railroad companies." And he proposed relays of horses, letters being sent separately from other mail matter for greater speed, by which means he hoped they might travel as fast as the railroad cars.[46]

There is no evidence that the idea was very seriously entertained, and such propositions were perhaps made rather as threats, for the purpose of securing concessions from the railways. That is the tenor of a resolution which passed the House in 1841. It runs: "Resolved, That the committee on the Post Office and Post Roads be instructed to inquire into the expediency of a bill authorizing the Post Master General to establish express mails along the great lines of steamboats and railroad communications, in case he is not able to make contracts to have the mails transported * * * by railroad or steamboats, for the rate of compensation prescribed by law."[47]

3. *The Public Defense*

The utility of the railway for military operations was early called attention to in Congress,[48] the experiences of the War of 1812 giving weight to this consideration. In debate over granting a right of way, Mr. Parks said,[49] that the Seminole war illustrated the necessity for transporting troops and munition of war, "and unless some provision was made by the Government for compelling these companies to carry government property, they might charge their own price, or even refuse to carry them." Like the carriage of mail, this consideration was used as an argument for government aid; and like the mail service, it became a ground for government regulation. No evidence that it led to actual regulation has been found, however, and it cannot be called an effective factor to that end. It merely contributed to a tendency toward regulation.

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[46] *Cong. Globe*, Apr. 7, 1836, III, 313. See above p. 239. At this time it was not entirely and generally certain that railways were more desirable than stages for the transportation of the mail.

[47] *H. J., 1841 (special sess.)*, p. 357.

[48] E. g., *State Papers, 1829-30*, I. No. 7, p. 20 ff; and below in the chapter on monetary aid.

[49] *Cong. Globe, 1836-37*, p. 115. Atchafalaya railroad.

4. *Territories*

Another case of government regulation occurred in regard to a railway in the territory of Florida. In 1838, an act[50] was passed by Congress in confirmation of the act of the Legislative Council of Florida incorporating the Florida Peninsula Rail Road & Steamboat Company. In this act it is provided that during Florida's existence as a territory, Congress might at any time prescribe and regulate the tolls of the company.[51] The company was also prohibited from doing a banking business, and its surveys were to be made within one year.

Here then was a field in which, as in the District of Columbia, government control might naturally arise.

5. *Public Lands*

Quite similar was the relation of Congress to such railways as passed over the lands held in the name of the general government. In the period of our history now under consideration, vast tracts of public land lay unclaimed within the boundaries of the southern and middle western states. To open these lands to settlement, railways were later encouraged; and when, as was frequently the case, they had to cross such land, they naturally became subject to regulation by Congress. Thus it was stated that when a railroad went through the public lands, it was the duty of Congress to provide some power by which they might be compelled to carry the mails, troops and supplies of the government[52] free or at reasonable rates.

6. *Investment*

Where assistance was given to railways by the government and was regarded in the light of an investment,[53] there was a tendency to regulate. Mr. Niles expressed the idea when he said that he thought if the general government contributed to the construction of a road, it ought to have some control over it.[54] There is certainly a tendency on the part of a person or a group of persons to look for something in return for a favor granted. Probably there is no one who will not agree to this statement and perhaps the best explanation for the fact lies in "human nature." This tendency was evinced by certain congressmen and popular conventions and that it was carried out to so slight an extent might be taken as one form of aid to railways.

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[50] *Acts of Cong., 1837-38*, chap. 150, sec. 7.

[51] Upon admission as a state, like power was to pass to the State Legislature.

[52] *Cong. Globe, 1836-37*, p. 116. For statement of similar idea, see *Report of Special Committee on Memphis Convention* (1846).

[53] See above, p. 255.

SUMMARY

Almost from the first appearance of the railway in the proceedings of Congress, it was recognized as being different from other means of transportation in its economic and social relations. On the one hand, its advantages to the nation as the most rapid and efficient means of intercommunication were soon realized; on the other, its tendency to monopoly and exaction was early observed, and it shared with other capitalistic enterprises the hostility of those people who were inclined to oppose such concentration of wealth as existed.

Both its beneficial and its harmful capacities brought it into close relations with the government; in the earlier days of small capital and loose federation, its advantages as a bond of union led to movements for government construction and assistance, and like conditions in the case of the Pacific roads induced a like attitude; while the realization of harmful tendencies brought agitation for government ownership, or regulation. The last tendency alone was put into practice.

In some six distinct ways, the government tended or actually came to regulate railways:

1. As sovereign in the District of Columbia.
2. As supreme authority in the territories.
3. As "proprietor" of the public lands.

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[54] *Cong. Globe, 1845–46* (*Sen.*), p. 752. The attitude is found in debates on remission of duties on railroad iron, and is frequent in connection with land grant discussions.

4. As distributor of the nation's mail.
5. As provider for the public defense.
6. As an "investor,"—of aid to railways.

More chronologically, four periods may be distinguished in the social and political history of railways down to 1850,—what may be called the railway movement.

I. *Prior to 1825:* First came a period of doubt and prophecy. This was before any practical railway transportation existed in the United States. Men speculated upon the advantages to the Union of so rapid a means of communication, and turned to the government for assistance. The great need for "internal improvements" went hand in hand with a rather paternalistic attitude of Congress toward such measurers.

II. *1825–1835:* Roughly in 1825, Congress began to take active interest in railways. This was eminently a period of experiment. Some inclination toward actual construction by government was shown. Only toward the close of this period did "states' rights" become an issue. Canals, turnpikes, and railways were all considered together, and were regarded as a legitimate field for pretty active government co-operation, though government ownership and operation were regarded as a political impossibility.

III. *1835–1845:* By the year 1835 the railway had become a practical factor in the nation's transportation economy. After 1835 it superseded canals and roads as a national "improvement." But national internal improvement ceased to be a live political issue. About this time, too, the railway came into considerable disfavor with a large part of Congress. Exactions in connection with the mail service caused agitation for control, and there was much complaint concerning supposed monopolistic and undemocratic features. This period is characterized by a tendency to regulate, the mail problem being its most salient feature.

IV. *1845–1850:* A feature of the last five years of the first half of the century was the agitation of a railway to the Pacific. This brought on discussion of the attitude of government to railways, in which clear expression was given to the idea that our political institutions made government ownership and operation impossible. Though a few bold men, mostly from the West, advocated a government road, this idea prevailed. The growth of railways in the West, where lay the unclaimed public domain, makes the point of contact between railways and government which characterizes these years.

BOOK II

AID TO RAILWAYS

CHAPTER VIII

GENERAL INTERNAL IMPROVEMENT FUNDS*

As price cannot long be less than sufficient to cover the expenses of producing most commodities, but tends to equal such expenses, so, in the long run, the attitude of the people and of Congress towards internal improvements in general and railways in particular tends to correspond to the necessity or expediency of such improvements; at any one time, however, adventitious factors and sentiments may make them "popular," or bring them into disfavor.

THE YEAR 1825: FACTORS MAKING FOR INTERNAL IMPROVEMENTS

In the year 1825, internal improvements were exceedingly popular. New York had just completed the Erie Canal, thus arousing pangs of jealousy and inciting emulation on the part of her sister commonwealths. Government aid to the states in prosecuting systems of transportation was in high favor in most localities, such opposition as was made proceeding upon constitutional grounds.

Again, the country had recently recovered from the panic of 1819–20. The national credit stood high, both agriculture and manufactures were flourishing, and a tendency toward optimism arose. The public debt, too, was fast decreasing, and at the beginning of 1825 amounted to only $79,000,000. This sum would soon be paid off, and a surplus arise. John Quincy Adams, beginning his administration at this time, made a national system of internal improvement his one great policy.

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* The present chapter takes up the subject at the time railways begin to be considered. That there were earlier developments should be borne in mind. When Ohio was admitted in 1802, 5 per cent. of the net proceeds of the sales of public lands within her borders was set aside as a fund for constructing roads and canals, and similar funds were established for other western and southern states. In 1817, the celebrated *Bonus Bill* proposed to distribute the amount paid by the United States Bank for its charter among the states. In 1818 it was resolved in the House that Congress had power to appropriate for canals, roads and waterways; and in 1819 Calhoun reported in favor of a general system of internal improvement along the lines proposed by Gallatin in 1808.

In 1825 the House committee on roads and canals concluded its report on internal improvement in these words: "We can never expect to see a more propitious period than the present to commence the internal improvement of the country, on a scale worthy of the importance of the subject; the prospect of a long peace lies before us, and there seems to be nothing else of high interest to engage the councils of the Union * * * * ."[1]

Now this same report contains a reference to railways,[2] and in the first chapter evidence has been presented to show that at exactly this time Congress was considering the same subject. In England the railway was applied to general commerce in a practical way in 1825, and this country was stimulated to similar projects.

Lest it be thought that the significance of railways at this time has been exaggerated, the following resumé of articles referring to the subject has been taken from a single newspaper for a single year, 1825: The English run wild to invest their capital, the prevailing "notion" (!) being that steam railroads are more expeditious and cheap than canals.[3]—$70,000,000 are already invested in English railway stocks!—It is calculated that upon a railway having considerable traffic, merchandise may be transported at 2 d. per ton per mile, and passengers at ½ d. per mile.—The London *Courier* says concerning Minister Rush, that "the American government has possessed itself, through its minister, of the improved mode of constructing and making railroads, and there can be no doubt of their immediate adoption throughout that country."[4] An English journal is quoted at length showing the advantages of railways over canals.[5] A similar notice appears in which it is stated that merchandise may be conveyed on railways more rapidly than on canals, and at one-fourth of the cost.[6]—The legislature of Pennsylvania is considering making an experimental railway at Harrisburg, and a locomotive is now constructing for the same.[7]—An account of the opening of the Stockton & Darlington railway is given.[8]—An English railway is described, and a quotation given to the effect that a railway from Albany to Schenectady would be useful and profitable.[9]

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[1] *Rep. of Com., 1824-25*, II, No. 83, p. 14; *Niles' Register*, XXVIII, 95.

[2] *Ibid.*, p. 4.

[3] *Niles' Register*, XXVIII, 54.

[4] *Ibid.*, p. 68.

[5] *Ibid.*, p. 143.

All these considerations make it clear that from about 1825 on, the congressional histories of internal improvements and of railways are one.

BILLS AND RESOLUTIONS FOR AN INTERNAL IMPROVEMENT FUND

1. *Railways not specifically mentioned*

On December 22, 1824, Mr. Johnson (La.) submitted a resolution in the Senate the main idea of which was that the public lands should be appropriated and pledged as a permanent fund for education and internal improvement.[10] This fund derived from land sales was to be invested in United States Bank stock, government stock, or other stock, as Congress might direct; the proceeds were to be distributed among the states according to their ratios of representation, one-half for education, "and the other half shall constitute a fund for internal improvement, to be applied to these objects under the authority of the respective states." This resolution was not carried.[11]

A few days later Mr. Stewart (Penn.) offered a similar resolution in the House.[12] He referred to ample revenues and the flourishing condition of national finance, growth of population, increase of internal trade, and vast extent of territory, and proposed that a bill be reported pledging the proceeds of land sales and the dividends of the United States Bank stock "as a permanent fund for the purposes of internal improvement." Accordingly, on February 26, 1825, a bill was reported by the House committee on roads and canals which authorized the President to borrow funds up to $10,000,000, to be invested by the secretary of the treasury in such companies incorporated by the states as Congress should approve. The same official was to vote such stocks and receive the dividends arising therefrom.[13]

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[6] *Ibid.*, p. 191.

[7] *Ibid.*, XXIX, 35.

[8] *Ibid.*, p. 184.

[9] *Ibid.*, p. 403 (Feb. 1826).

[10] *S. J., 1824-25; Niles' Register*, XXVII, 270. From another standpoint, this and similar measures are equivalent to land grants for internal improvements.

[11] Dec. 25, 1824; discussed and laid on table for the present.

[12] Dec. 28, see, *H. J., 1824-25*, p. 87; *Niles' Register*, XXVII, 286. This resolution was ordered to lie on the table to be printed.

In January, 1826, there were two similar proposals: one, a House bill[14] reported by Mr. Hemphill; another, a resolution[15] submitted in the Senate by Mr. Dickerson, which proposed to require the secretary of the treasury to distribute $3,000,000 annually among the states for education and internal improvement.

Thus in the middle of the second decade of the nineteenth century, there was evinced in Congress a strong movement for the establishment of a general fund for internal improvement, and the railway, having by that time come within the scope of that term, this movement is of importance to the history of aid to railways. Its direct relation to the present history consists in the light it throws upon the immediate setting or atmosphere in which the railway entered Congress.

2. *Railways specifically mentioned*

In at least one proposition for a general fund made at this time railways were specifically mentioned. On December 27, 1825, Mr. Test offered the following resolution: Resolved, "That the Committee on Roads and Canals be instructed to inquire into the expediency of establishing a general system of Internal Improvements embracing canals, roads and railways, with a fund derived from the sale of Public Lands or otherwise * * * to be distributed among the several States, if required by them, agreeably to their population."[16]

In the following year we find an important set of resolutions advanced in the House by Mr. Mercer (Md.), who, it will be remembered, was to be president of the Chesapeake & Ohio Canal Company, and was prominent in its controversy with the Baltimore & Ohio Railroad Company.[17] These resolutions may be summarized:

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[13] *H. J., 1824-25*, p. 274; *Rep. of Com., 1824-25*, II, No. 83. Bill together with report laid on table.

[14] *Niles' Register*, XXIX; 350.

[15] *Ibid.*, and *S. J., 1825-26*, p. 321; laid on table, p. 342.

[16] *Cong. Debates, 1825-26* (*H. of R.*), II, Pt. I, 861.

1. It is expedient to establish a fund for internal improvements and devise rules for its proper application to such roads, railways and canals as may be deemed by Congress to lie within its constitutional powers.

2. This fund shall consist of a portion of the unappropriated annual revenue.

3. A system for collecting information for the distribution of this fund shall be devised, embracing United States engineers, both military and civil,—a corps of topographical engineers from the latter to collect information, the residue to estimate cost of public works already begun. And at each census the fund shall be appropriated for the next ten years.[18]

4. Preference shall be given to the instrumentality of joint stock companies, the income from such investments to constitute a special fund for payment of interest on loans and carrying out similar works of a public nature. The stocks shall be disposable by the United States for use, in case of need, for public defense.

This set of resolutions constitutes one of the most comprehensive schemes for the creation and administration of a general fund for internal improvements which was proposed in Congress at this time.

NATIONAL INTERNAL IMPROVEMENTS LOSE FAVOR

Shortly after this period the system of national internal improvement began to meet opposition and decrease in popularity, and consequently there was a decline in the movement to establish general funds for prosecuting canals, roads, and railways. For a time, bills and resolutions for such a fund continued to appear in Congress;[19] but the opposition of the South began to form, and this, together with the hostility to corporations and some abuses in the administration of the system,[20] gave rise to a series of counter resolutions, and by 1835 the movement was largely spent.

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[17] Above, p. 221.

[18] The census tables were to "comprehend especially descriptions of artificial roads, railways and canals, * * * * denoting of railways, the number of lines of parallel rails, and their horizontal inclination; of the canals, their breadth and depth of water, and of all of those public works, their denominated length, actual cost and annual profit", with tonnage carried, etc. Some attempt was made to follow this idea, and in 1835 a statistical view of the U. S. from 1790 to 1830 was published. Inquiries were sent to state and county officials, but on internal improvements returns were only received from six states, and were not published.

There remains to be discussed, however, one incident in the early congressional history of internal improvement funds. On May 22, 1830, the Senate took up a bill for authorizing a subscription to the stock of the Baltimore & Ohio Railroad Company, and after some discussion, Mr. Livingstone (La.) brought forward an amendment which required that funds for the proposed subscription be drawn from the sale of other stocks invested in works [21] of similar character. This alone, said he, could save "the system of internal improvement" from destruction. Mr. Webster (Mass.) agreed: he thought the funds of the general government in works of internal improvement ought to be a circulating fund; adding, however, that to dispose of stocks might be inexpedient. Mr. Grundy stated that if a transfer of stock from the Chesapeake & Ohio canal would answer, well and good; but he would vote against a project to draw money from the treasury.[22]

Thus the idea comprehended in this discussion was that of a mobile "fund" to be invested in a company, and then,—when the company was on its feet,—by a sale of stock to be made available for new works.

President Jackson, in his message of 1831, suggested employing the surplus revenue, which was about to arise, in works of internal improvement, and he referred to railways as holding out great hopes for the future.[23]

In the resolutions proposed by Mr. Mercer in 1826, the establishment of a system for obtaining information was given great importance, and a corps of engineers was proposed. Indeed, such a system was indispensable, nor was the preliminary work of examination and survey open to such constitutional objections as was investment in established enterprises. The nearest approach to the general internal improvement fund so strongly advocated from 1824 to 1826 ever reached by Congress was an annual appropriation for general surveys, which forms the subject of the following chapter.

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[19] See indices of *H. J.* for 1827–28, and 1828–29, under *Internal Improvement.*

[20] *Ibid.*

[21] Ches. & Ohio Canal, Ches. & Del. Canal, etc.

[22] The amendment was not carried and the bill failed 21 to 19.

[23] Above, p. 249.

CHAPTER IX

GOVERNMENT SURVEYS

THE GENERAL SURVEY BILL: 1824

The period lying roughly between the years 1822 and 1824 was one of active and prolonged discussion concerning the proper attitude of our government toward the subject of internal improvements. Although, in 1822, Monroe's veto had resulted in the failure of a bill[1] which would have brought the operation of the Cumberland Road within the control of Congress, there were whole days of debate over the power of Congress to "establish" works of internal improvement during the two years that followed.[2] Belief in the expediency of such a power was strong, but constitutional scruples proved stronger. A distinction was drawn, however, between actual construction by government and assistance given preliminary to construction by state or corporation, and along the line of this distinction a measure in the nature of a compromise was passed. This was the so-called general survey bill of April 30, 1824.

In the early years of the century civil engineers were very scarce relatively to the demand for them. The settlement of our vast public domain and numerous roads and canals constantly required the service of surveyors and engineers, and on some of the larger works foreigners were employed.[3] The period was one in which new lines of communication and transportation were rapidly projected,—one of births and expansions. The work of plans, surveys and estimates was in great demand

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[1] See above, p. 254.

[2] See *Annals of Cong., 1823–24*, e. g., p. 1022 ff.

[3] French engineers were in repute and were employed in connection with the Chesapeake & Ohio canal.

and of high relative importance at this stage, and it was natural that a government which was desirous of increasing the facilities for its commerce, and which maintained a corps of engineers in its employ, should have begun with aid to these initial steps toward the construction of such facilities. The first assistance ever granted by Congress for railway purposes was given in the shape of a survey by government engineers.

The survey bill of 1824 authorized the President to cause the necessary surveys, plans and estimates to be made for the routes of "such roads and canals as he may deem of national importance, in a commercial or military point of view, or necessary for the transportation of the public mail;" and a limited number of civil engineers and officers of the corps of engineers was placed at his disposal. Thirty thousand dollars annually was the amount appropriated to cover expenditures.[4]

The act contains no mention of railways. Some little significance attaches to this fact, in that, as has already been made clear, the attention of Congress had been called to this means of conveyance,[5] and at its very next session several propositions for experiments with railways were made. Yet at this time no railways capable of competing with roads and canals for general commerce existed in the United States, and it is not necessary to ascribe the omission to a disbelief in their advantages. At the time, railways were of no practical importance.

On January 24 of the following year, 1825, a resolution was brought forward in the House which considered an appropriation toward sending four military academy graduates to Great Britain, "for the purpose of examining the improvements made in that kingdom in the roads, railways, canals, and other branches of civil engineering.''[6] Such men, had they been sent, would have placed the fruits of their examinations at the disposal of works of internal improvement under the act of 1824, and the inclusion of railways in the resolution is suggestive. On the other hand we are told that the demand for surveyors encouraged the study of civil engineering among United States cadets.[7]

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[4] *Laws of the U. S.*, VII, 239. *Acts of 1823-24*, ch. 276.

NOTE.—The rules which came to be prescribed concerning these matters were, (1) Surveys ordered by law, generally provided for by specific appropriation, should be made; (2) Surveys ordered by resolutions of Congress, the expenses of which, including pay of civil engineers, were defrayed from annual appropriations; (3) "Surveys of a national or highly interesting commercial character, applied for by states or incorporated companies,"—aid in this case being confined to the loan of such engineers and instruments as could conveniently be spared. (See *Sen. Docs.*, 1835-36, I, 219.) Thus in the statements of surveys many are included which were not ordered by resolutions of Congress or by any law. (See Appendix to this chapter.)

[5] See Latrobe's *Report*, Dearborn's *Petition*, Oliver Evans, and John Stevens, etc.

The next month a report of the committee on roads and canals—which outlined a comprehensive scheme for surveys—mentioned the advisability of making experiments with railways.[8]

THE FIRST RAILWAY ROUTE SURVEYED: 1825–26

Whatever significance may lie in the fact that railways were not specifically mentioned in the act of 1824, within the course of two years we find a part of the fund appropriated under this act devoted to a survey for canals or railways, and soon government engineers were busy surveying, planning and superintending the construction[9] of numerous lines for the new means of transportation. In the State Papers of 1826–27[10] is a document showing the number and designation of the several examinations and surveys made since the passage of the general survey bill and under its provisions. The twenty-fifth item under this head runs as follows: ''Examinations and Surveys to ascertain the practicability of uniting the headwaters of the Kenawha[11] with James river and Roanoke river, by Canals or *Rail-ways.*'' These surveys are believed to be the first aid ever given by our government for railway purposes. They were made between 1825 and 1826.

In the first place, it will be noted that the surveys were made for canals or railways. The railway had only just entered the field as a practical means of transportation, and the wonder is that it was considered at all. Perhaps the great natural obstacles to canal construction presented by the region accounts for it, or perhaps "rail-ways" was inserted as a mere contingency. We cannot say. But inasmuch as Congress was seriously considering railways at this time, it would seem that the mention is of importance. Simply, the superiority of railways over canals had not been demonstrated.

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[6] *H. J., 1824–25,* p. 163. The resolution was proposed by Mr. Livingstone, La. It was decided in the negative.

[7] *Niles' Register.*

[8] *Rep. of Com., 1824–25,* II, No. 83, p. 4.

[9] These various operations are all included under the term, survey, in the text. Surveys predominated.

[10] Vol. V, No. 83. No report upon this survey found.

[11] Kanawha river, W. Va., flows into the Ohio. The survey brought no immediate tangible result.

Again, these improvements were to be made in the South. The importance of the efforts of the south Atlantic states to open communication with the Ohio valley to the development of railways has already been touched upon.[12] The proposed route would have opened direct communication over the Allegheny Mountains between the languishing industries of Virginia and North Carolina on the one hand, and, on the other, the Ohio and the boundless resources of the Northwest. In the report on internal improvements made by the House committee on roads and canals, this line of connection was proposed, the words of the committee being: "James river, in the state of Virginia, it is believed, can be connected with the Kenhawa, which empties into the Ohio. This will afford that valuable section of the country a water communication to the Lakes, through the canal to be cut from the Ohio river to Lake Erie."[13]

It was the same end which caused the construction of the Baltimore & Ohio and the Charleston & Hamburg railways,—to say nothing of the internal improvement enterprises of Pennsylvania or New York,—and several southern railways, the surveys for which will be found noted in the table appended to this chapter.[14]

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[12] Above, p. 220.

[13] *Rep. of Com., 1824–25*, II, No. 83, p. 8.

[14] The following report of a Georgia commission is interesting and typical: "Your commissioners can say, . . . that they do not believe that there is in the United States so small a work of internal improvement as the contemplated rail-road, fraught with consequences so important . . . to the same extent of country . . . The first and most important inquiry for the people of Georgia is, have we within our own State an *outlet* for our immensely valuable productions, and an *inlet* for 'foreign goods', that may be made to vie with the large sea-ports in other states? . . . Savannah, we fear, is pros-

SURVEYS BECOME FREQUENT

After this first survey, similar grants of assistance to states and corporations for railways became quite frequent,[15] reaching a maximum in 1835, at which time some thirteen different railway routes were reported as receiving aid from the Topographical Bureau.[16]

THE SENATE CALLS A HALT: 1828

The rapidly increasing number of works of internal improvement benefiting by the service of government engineers was not slow to beget abuses and arouse opposition. As no law was necessary, the resolution of a state legislature or the petition of a corporation was sufficient to secure a survey,[17] and this led to practices which caused complaint. The modern pessimist would say, "another case of 'graft.' "

In 1828 a House bill making appropriations for internal improvements was taken up by the Senate.[18] Chief among several amendments proposed was one providing that the appropriation of $30,000 should be confined to such surveys as had already been undertaken.

Mr. Hayne (S. C.) strongly supported the amendment, urging that the system had been extended to innumerable surveys and promised to become interminable. He, together with Mr. McLane (Del.), complained that purely local objects had been

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trated by the completion of the Charleston rail-road to Augusta, . . . Our system of internal improvements has been radically defective. Instead of directing our operations to one important point on the sea-coast, we have been working from village to village, carrying our improvements across the state; thus giving facilities to the passage of our produce into other markets. . . . Georgia has not a moment to lose. . . . "

Report of Georgia Commissioners appointed to examine the port and railway cf Brunswick; submitted to the State Legislature, July 17, 1833.

(See *Exec. Docs., 1836–37*, III, No. 122, p. 13.)

[15] Roads and canals were far more frequently aided at this early time, and the Act of 1824 was repealed at the 1837–38 session of Congress. The general term, survey, as used embraces examinatons, estimates, and superintendence of construction which was sometimes afforded.

[16] At this time the Bureau reported its engineers to be engaged on some thirty-five different works.

[17] See note to p. 276.

[18] *Cong. Debates, 1827–28 (Sen.)*, IV, Pt. I, 604, April 8 and 9.

surveyed, such as the law of 1824 had never contemplated. "The effect of this system," said Hayne, "would be to raise false hopes, and paralyze the exertions of the States themselves." It is clearly to be inferred from the utterances during this debate that complaint was being made on the ground that surveys had favored states, individuals, and corporations; and here, again, we catch a glimpse of the popular distrust of private aggregations of capital.

Mr. Webster (Mass.) opposed the amendment,[19] and defended corporate activity, saying that corporations very often had more regard for public good than for private interest. What objection was there if a corporation or an individual served the utility of the nation? Mr. Smith (Md.) thought it inexpedient to deprive such states as had not yet received surveys of the benefits of the appropriation. He referred to the valuable aid received by the Baltimore & Ohio Railroad Company and stated that similar aid was wanted in South Carolina.[20]

When the question as to the amendment's adoption was put, the vote stood a tie. This placed its fate in the hands of the Vice-President. The Vice-President was John C. Calhoun (S. C.) He cast the deciding vote for the amendment,—against further government surveys.

Upon return to the House, however, the amendment was objected to, and, to cut a long story as short as may be, an act was finally passed so amended as to read: "That this appropriation shall not be construed into a legislative sanction of any examination or survey which shall not be deemed of national importance,"—merely a declaration of principles.*

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[19] *Ibid.*

[20] For the Charleston & Hamburg railroad.

* Note.—The names of the senate speakers in this debate suggest an interesting analysis in the light of sectional interests. Hayne and Calhoun were representatives of states' rights, and were opposed to tariffs and internal improvements. McLane of Delaware came from a state which had no great profit to expect from government surveys. Webster, the winner of the Dartmouth College case, the nationalist, whose constituents were about to receive numerous railway surveys, was true to his section in defending corporate activity and in opposing the amendment. Baltimore lay in Maryland, and Mr. Smith was naturally favorable to the extension of railways and canals. Mr. Johnson of Louisiana, who took the same side, represented a region which was to profit by government aid (Lake Ponchartrain to New Orleans, St. Francisville to Woodville).

Undoubtedly there was much truth in the charges against the operation of the Topographical Bureau. When any locality or corporation could make application for engineers, and so shift even a minor expense upon the government, the door was open to selfish and corrupt influences. It led to log-rolling and to abuses of patronage.[21] Such evils made a force which operated against government aid and contributed to bring the system of national internal improvement into discredit in the thirties.

Moreover, from the outset, the power invested in the executive by the act of 1824 was jealously watched by Congress. Between 1825 and 1830 there were numerous resolutions introduced in the House proposing to substitute specific appropriations to be approved by Congress for the general survey appropriation, and there was a movement to demand that a description and estimate of cost and time required for the completion of each work accompany the appropriation.[22]

Representatives of the South, again, wished to restrict national activity, whether executive or legislative, and it was this factor which was largely responsible for the propositions which appeared from time to time[23] to limit the appropriations for surveys to such works as were already under way. This opposition is distinct from that due to corruption and local surveys.

Evidence of a tendency to hostile investigation appeared in 1836, when a senate resolution[24] demanded a report relative to the employment of the topographical engineers. The report indicated six railway enterprises, of which three had been granted aid upon application of incorporated companies, two upon resolution of state legislatures, and one upon application of a senator for his state.[25]

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[21] Schouler, *U. S. History*, III, 481, writes of 1830: "Even in the matter of surveys it had come to such a pass that a state, a town, or a private company, with a road or canal to construct, pushed to have the work laid out at the cost of the U. S."; and this was true for railways also.

[22] See *H. J., 1826–27*, pp. 108, 118, 233; *Ibid., 1827–28*, p. 359; and in general the indices of the *H. J.* under *Inter. Imp.* These resolutions were commonly laid on the table.

[23] *H. J., 1826–27*, p. 319; *Ibid., 1827–28*, p. 388–393; above, p. 279.

[24] *S. J., 1835–36*, p. 450.

[25] *Sen. Docs., 1835–36*, VI, No. 419.

The Act of 1824 Repealed: 1837–38

It was not until the following session, however, that the opposition to the system of government surveys for internal improvements triumphed, and the act of April 30, 1824 was repealed. This was accomplished in "An Act to increase the present military establishment of the United States and for other purposes."[26] That the same forces were at work is evident from the remarks of Senator Buchanan who, in debate over this measure, said that he had evidence that officers of the army were being employed by railway and canal companies, and that large fortunes had thus been accumulated, while the government's business was neglected.[27]

It is not unlikely that such evils were considerably exaggerated, and certainly no great loss to the government was involved. The report of the Topographical Bureau for 1838[28] states that the practice complained of existed in the case of only four officers of that bureau, but two of whom were officially assigned, the other two acting "informally." The Bureau, moreover, evidently did not deem this an evil, urging that government surveys had not been neglected.

It seems probable that conditions surrounding the crisis of 1837 had much to do with the repeal of the survey act at this time.

Discussion of the Various Surveys: 1825–44

The significance of the first survey for a railway route has been dwelt upon at some length, and attention has been called to the fact that it was made for a canal or a railway. Between this time and 1833 five surveys were directed toward the same end, one more in 1833, and one in 1834. After that date canals and railways were not considered as alternatives in the same survey, and it is more than a coincidence that this fact corresponds with the conclusion that about 1835 the superiority of railways was realized.

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[26] *Acts of Congress, 1837–38*, chap. 162, sections 6 and 31: The act further provided that no officer should be separated from his regiment for employment in civil works of internal improvement or enter the employ of *incorporated companies;* provided that where they could not be conveniently withdrawn from work already undertaken, they might remain one year.

[27] *Cong. Globe, 1837–38*, p. 133.

[28] *Sen. Docs., 1838–39*, I, 366.

Several conclusions of interest and importance are revealed by a statistical study of the surveys. Between 1824 and the repeal of the survey act in 1838, some sixty-one distinct railway surveys[29] were mentioned in congressional proceedings. Of these, fifty-nine represent surveys actually reported or inquired into, one having been negatived, and another being unspecified and indefinite.

Thirty-nine[30] of these surveys were for railway routes lying north of the Baltimore & Ohio railroad, and of these, ten lay west of the Allegheny mountains. Naturally the latter were of a later date, seven of the ten being made between 1835 and 1839.

South of the Baltimore & Ohio, some twenty-one distinct surveys were made prior to 1838,[31] and a survey for a road from St. Johns to the Suwanee river[32] and an estimate for one across the peninsula of Florida,[33] which were made after the repeal, bring the number up to twenty-three.

Thus, on the score of surveys for railways, the South had little to complain of, and not only the earliest but the most considerable government surveys under the act of 1824 lay south of the Baltimore & Ohio. In this section routes were surveyed from Charleston to Hamburg, Winchester to Harper's Ferry, Augusta and Savannah to Memphis, and many others, with the general aim of connecting the sea-board with the interior.

All the states then embraced in the Union received aid save only Illinois and Delaware, no record of government surveys being found for those states. In New Hampshire, North Carolina, and Florida, however, but little was done. Georgia seems to be the state most favored, though several routes were surveyed in both Massachusetts and Alabama.

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[29] Some partly over same route, but nevertheless distinct.

[30] Does not include unspecified surveys in N. Y., Mass., Conn. and R. I.

[31] Including unspecified survey in North Carolina (1836).

[32] *Exec. Docs., 1842–43,* III, No. 78.

[33] *Sen. Docs., 1843–44,* II, No. 62, p. 19.

It has been said that in the early days of railway construction it was thought that the chief lines were to run north and south. In view of this statement, it is interesting to observe that the great number of the government surveys lay in a general east and west direction.

In this connection, too, the relation of railways to water transportation comes up again,[34] and the necessary conclusion is that the majority of the surveys were made without reference to subsidiary or auxiliary relations to rivers or canals. There were some, such as the routes from the Kanawha to the James, the Pearl to the Yazoo, the Allegheny to the Genesee, and the Tennessee to several southern rivers; but there were other surveys, such as that along the Connecticut river, and the short roads in New York, and the Baltimore & Ohio that paralleled rivers and canals, and the routes of the Charleston & Hamburg and the Brunswick railways, and the surveys from Pensacola to Columbus, Memphis to Augusta, etc., were calculated to take commerce from the rivers. Most of the other surveys were made to connect points inland with the ocean, taking the place of rivers, as it were.

It is of some significance that in most cases the routes of these government surveys were early taken by railways. Of 27 railways actually existing or partly in progress in 1833[35] at least 10 had received government surveys; and these 10 are all included within the 18 roads which were twenty-five miles or over in length. A comparison of a modern railway map with the map of surveys shows that in the great majority of cases these early surveys have been closely followed.

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[34] See above, p. 226.

[35] Arfewdson, *The U. S. and Canada in 1832, 1833 & 1834*, II, 265. This list includes in addition the Quincy and Mauch Chunk railways, making a total of 29.

APPENDIX TO CHAPTER IX

LIST* OF RAILWAY SURVEYS, MADE OR PROPOSED, IN ACCORDANCE WITH THE ACT OF 1824.

Year.	Purpose.	NAME OR LOCATION OF ROAD.
1824-26.....	Railway or canal....	Kenhawa (Kanawha) river to James and Roanoke rivers.
1827........	Railway..............	Baltimore & Ohio—Preliminary examination.
		Other resolutions or reports:
1827-28.....	Railway..............	*Cayuga lake to the Susquehanna river* at or near Owego, N. Y.
	Railway or canal....	Tennessee river to Atlantic coast of Georgia.
1828........	Railway..............	*Baltimore & Ohio:*
	"	Hudson, N. Y., to Pittsfield, Mass. ($327.08).[1]
	"	Owego to Ithaca, in New York.
	"	Ithaca to Catskill, in New York ($2,538.61).
	"	Charleston to Hamburg, in South Carolina, aid promised.
	"	Savannah river to Tennessee river.
	Railway or canal....	Tennessee river to Altamaha river.
		Other resolutions or reports:
1828-29.....	Means unspecified...	Hudson river to tidewater in Mass.
	Railway..............	Hudson and Berkshire ($885.19); Sec'y War directed to transmit report.
1829........	Railway..............	*Catskill to Ithaca*, in New York.
	"	*Charleston to Hamburg*, in South Carolina ($5,949.51).
	"	*Baltimore & Ohio*, continued ($6,685.83).
		Other resolutions or reports:
1829-30.....	Railway and canal..	*Altamaha river to Tennessee river:* Report of survey and estimate submitted by Jackson.
	Railway or canal...	Tennessee river to Mobile river.
	" " "	Along Connecticut river to Canada; (appropriation for)
	Railway......	Boston to Lake Champlain.
	"	Terminal of Charleston & Hamburg to Lexington, Ky.
	"	Augusta to St. Marks, Fla. (negatived).

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* This list is drawn from the reports of the Topographical Bureau (after 1830), reports of Engineer. Dept. to Sec'y of War, resolutions of Congress, special messages showing the operations of the Topographical Bureau, etc. Where the exact date is given (i. e., 1827, 1828, 1829, etc.) it is intended to indicate that during that year the government engineers were actually employed on the works indicated. Where the date given is no more definite than a session (i. e., 1827-28, etc.) some special mention is indicated. The names of railways to which aid was continued throughout more than one year are italicized after the first mention; or where a survey is merely proposed at one session and is reported as actually being surveyed later, the former mention is italicized.

[1] This and the following figures are totals expended up to Sept. 30, 1830. They are found in *Rep. of Com., 1830-31,* No. 77, p. 33, and are presented to give some idea of amount expended in individual cases.

LIST OF RAILWAY SURVEYS, MADE OR PROPOSED, IN ACCORDANCE WITH THE ACT OF 1824—Continued.

Year.	Purpose.	Name or Location of Road.
1830	Railway	Catskill to Canajoharie, N. Y.
		Pennsylvania canal commissioners aided by an engineer to determine method of crossing Allegheny summit of the Pennsylvania canal.
"	Railway	Baltimore & Susquehanna, aided in surveys.
		Other resolutions or reports:
1830–31	Railway	Boston to Ogdensburg, N. Y. (appropriation for).
1831	Railway	Winchester, Va., to Harper's Ferry.
"	"	Portage Summit of Ohio Canal to Hudson river (examination of a route).
"	Railway or canal	*Savannah and Tennessee rivers;* completing of drawings.
"	Railways	*Baltimore & Susquehanna.* Paterson & Hudson river. *Canajoharie.* Superintending construction of.
		Other resolutions and reports:
1831–32	Railway	*Bennington to Connecticut river;* (see below, southern Vermont).
"	"	Genessee river to Allegheny river.
"	"	Cumberland, Md., to Hollidaysburg, Pa.
"	"	Washington to Annapolis.
1832	Railway	*Winchester to Harper's Ferry.*
"	"	St. Francisville, La., to Woodville, Miss.
"	"	Williamsport, Pa., and Elmira, N. Y.
"	"	*Hudson river to Portage Summit of the Ohio Canal.*
"	"	New London, Conn., to Worcester, Mass.
"	"	Stonington, Conn., to Providence, R. I.
"	"	Mad River, O., to Lake Erie.
"	Railways	Boston & Providence. *Baltimore & Susquehanna.* *Paterson & Hudson river.* Superintending construction of.
1833	Railway	Across southern Vermont; reconnaisance for.
"	Railway or canal	Pearl river to Yazoo river.
"	Railway	*Williamsport, Pa., to Elmira, N. Y.;* completing reports and drawings.
"	"	*New London, Conn., to Worcester, Mass.;* completing reports and drawings.
"	"	*Hudson river to Portage Summit;* completing reports and drawings.
"	"	*Stonnington, Conn., to Providence, R. I.;* completing reports and drawings.
"	"	*Mad River to Lake Erie;* completing reports and drawings.
"	Railways	*Boston & Providence.* *Boston & Susquehanna.* *Patterson & Hudson river.* Superintending construction of.
		Other resolutions or reports:
1833–34	Railway	Falls of Ohio, via Indianapolis to Michigan City.
"	"	*Williamsport & Elmira.*
"	"	*New York & Erie.*[2]
1834	Railway	*Memphis, Tenn., to the Atlantic Ocean,*[3] reconnaisance for.
	"	Across the peninsula of Michigan.
	"	*Winchester & Harper's Ferry Co.;* to ascertain propriety of granting right of way at Harper's Ferry.

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[2] Same as Portage Summit to Hudson.

[3] See under 1834–35, Atlantic to Mississippi.

LIST OF RAILWAY SURVEYS, MADE OR PROPOSED, IN ACCORDANCE WITH THE ACT OF 1824—Continued.

Year.	Purpose.	NAME OR LOCATION OF ROAD.
		Surveys reported completed:
1834........	Railway	*Williamsport, Pa., to Elmira, N. Y.*
	Railway or canal....	*Pearl river to Yazoo river*, and a survey of "Yazoo Pass."
		Other resolutions or reports:
1834-35	Railway	Tennessee river to the Alabama river, expediency called for.
	"	Will's Valley to the Alabama river, expediency called for.
	"	Point Coupee to Opelousas—proposed.
	"	Atlantic to the Mississippi—three routes.
		Northern route, Memphis to Augusta.
		Southern " " " Savanah.
		Memphis to foot of Cumberland mountains.
1835........	Railway	*Memphis, Tenn., to Atlantic Ocean;* examination.
	"	Portland, Me., to Quebec; examination.
	"	Connecticut river to intersect Concord railway in New Hampshire.
	"	Boston to Whitehall, N. Y.
	"	Detroit to Pontiac.
	"	Detroit to St. Joseph's river.
	"	*Memphis to a point on Virginia-Tennessee line* best adapted for continuation of the road to the Chesapeake,
	Railways............	Lawrenceburg & Indianapolis Madison & Lafayette. Columbus & Jeffersonville.[4] } In Indiana.
	Railway	Pensacola, Fla., to Columbus, Ga.
		Other resolutions or reports:
1835-36.....	Railway	Hartford, Conn., to Canada; bill for survey of.
	"	*Charleston to Cincinnati.*
	"	Merrimac river to Connecticut river.
	"	Long Island railroad.
1836........	Railway	Eastern shore of Maryland.
	"	Belfast, Me., to connect with a railway from Canada line to Quebec.
	"	Various routes for—in New York, Connecticut, Massachusetts, Rhode Island, and North Carolina.
	"	*Pensacola to Columbus.*
	"	Charlestown to Cincinnati.
	"	In Missouri.
1836-37.....	Railway and canal..	Brunswick Canal & Railroad.
1837...	....	No report of Topographical Bureau.
		Reports of (previous) Surveys:
1837-38.....	Railway ?............	*Western & Atlantic of Georgia.*
	"	*Charlestown & Cincinnati.*
	"	*Winchester & Potomac* (probably same as Winchester & Harper's Ferry.)
1838........	Railway	Milwaukee to Dubuque.

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[4] This probably coincided with part of the route proposed for survey in 1833-34, see above.

LIST OF RAILWAY SURVEYS, MADE OR PROPOSED, IN ACCORDANCE WITH THE ACT OF 1824—Continued.

Year.	Purpose.	NAME OR LOCATION OF ROAD.
1839........	Railway	*Milwaukee to the Mississippi river;* message of the President, showing operations of Topographical Bureau.
1842–43.....	Railway	St. John's to Suwanee river; report communicated by Secretary of War.
1843–44.....	Railway	Across peninsula of Florida; estimate.

CHAPTER X

Monetary Aid

From time to time during the first three decades of the nineteenth century Congress contributed monetary aid to various transportation undertakings, and both then and later it was approached by companies which, being engaged in projecting or constructing works of internal improvement, sought for grants of money. Such grants could be made in at least two ways: Congress might make an appropriation to be applied specifically to the survey, construction, or improvement of some road, canal, or railway (i. e. Congress might donate money); or Congress might subscribe to the stock of a company engaged in such an undertaking. It is evident that the former method would apply in case the work were being prosecuted by the government itself or in case some interest other than a joint stock company were concerned; the latter method might be followed in case a stock company were organized for the work, when shares might be subscribed whether the work was merely in projection or in course of actual construction. But, of course, an appropriation might be donated to a joint stock company without taking any of the stock of that company.

It will be observed that an appropriation applied to a stock subscription would place the government in a different relation to the undertaking thus aided than would exist in case it were granted directly without a return in stock. In a sense, any assistance might be regarded as an investment, but by investing in stock the government would become part owner of the capital and be interested in the returns upon it,—its relation would be more permanent, more entangling.

Demands for stock subscriptions would only become prominent when plans of national importance were undertaken by corporations, and as this was not the case in the earlier years of our history, it follows that the first monetary aid given by Congress was granted directly. By the second decade of the last century, however, the corporate form of organization began to figure in national internal improvements, and it is significant that just at this time Congress was beginning to take active interest in railways. Thus, while many early appropriations were applied directly to the construction or improvement of roads and canals, the first propositions for aiding a railway through a grant of monetary funds looked forward to a subscription to the stock of an established corporation.

It may be well to state here that during the first half of the century Congress actually subscribed to the stock of no railway company and no appropriation was made directly and specifically for railway purposes.[1] This chapter is the history of numerous attempts to induce Congress to make such appropriations, all of which failed. It is instructive, however, to see what measures were proposed, and why they failed, and as such aid was given to roads and canals prior to the railway era, and again to railways after 1850, it is important to note progress and define periods.

Early Stock Subscriptions in Internal Improvements

In 1825 an act authorizing the subscription of stock in the Chesapeake & Ohio Canal Company was passed.[2] It directed the secretary of the treasury to subscribe for 1500 shares, and to pay for them from the dividends on the investment in United States Bank stock. The next year similar acts were passed in behalf of the Louisville & Portland Canal Company[3] and the Dismal Swamp Canal Company.[4] A further subscription was authorized for the Chesapeake & Ohio Company in 1828, and in 1829 the Chesapeake & Delaware Canal Company was likewise aided.[5] Between 1825 and 1830 the government subscribed for the stock of these four canal companies a total of $1,293,500.[6]

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[1] The general survey bill appropriation aided railways incidentally.

[2] *Laws*, VII, 406.

[3] *Ibid.*, p. 465.

[4] *Ibid.*, p. 478.

[5] *Laws*, VIII, 205.

THE MOVEMENT FOR STOCK SUBSCRIPTIONS IN RAILWAYS

In view of the above facts, it is natural that the first railways looked for like aid from Congress and requested subscriptions to their stocks. As early as 1828 a petition of the Baltimore & Ohio was laid before Congress, but, though favorably reported upon, it was so late in the session that no bill was submitted.[7]

At the second session of the twentieth Congress, however, the petition was renewed.[8] The memorialists set forth that they were constructing a railroad with at least two sets of track from Baltimore to the Ohio river. Of the estimated cost of six or seven million dollars, Maryland and Baltimore had subscribed $1,000,000 and individuals had added $3,000,000. They were convinced that "so enlightened a body as the Congress of the United States would fully appreciate the vast importance of the undertaking," and consequently had made provision in the charter for a subscription by the government.

The committee on roads and canals, to which was referred this memorial, reported in favor of a subscription, but the bill did not reach a second reading.

At the first session of the twenty-first Congress another memorial was presented in the House.[9] Work had now been carried on for nearly a year and three miles of track had been laid, while a careful examination of the proposed route to the Ohio showed its feasibility. The advantages of the projected railway for the mail service were set forth. This memorial was referred to the committee on internal improvements and a very favorable report was submitted.[10] The committee viewed the undertaking as one of "highly national character," but doubt existing as to the relative merits of canals and railways, it advised that aid be given only as far as the Point of Rocks,[11] in order to test the relative merits of these rival means of transportation before making any further subscriptions. Accordingly a bill authorizing a subscription to the railway company's stock was reported, but its fate was sealed on May 26, 1830.[12] Though it was urged in favor of the bill that this railway was a great and patriotic undertaking, and that Maryland deserved encouragement because of her heavy expenditure in its behalf, the House refused to act upon it and a motion to consider the bill was laid upon the table never to be taken up.

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[6] *Rep. of Com., 1830-31,* No. 77, pp. 35, 65.

[7] Reizenstein: *Econ. Hist. of the B. & O. R. R.,* in *J. H. U. Studies,* XV, 296-7.

[8] *Sen. Docs., 1828-29,* No. 73.

[9] *Rep. of Com., 1829-30,* Dec. 23, 1829, No. 23.

[10] Ibid., No. 211.

While this adverse action was taking place in the House, a similar bill[13] was receiving like treatment in the Senate, where the subscription was considered in connection with the whole system of national internal improvement. It was in this discussion that a circulating fund to be invested in the stocks of various works was proposed, the bearing of the proposition on the case under consideration being that funds for the proposed subscription would be drawn from the sale of other stocks, one senator stating that if a transfer of stock held in the Chesapeake & Ohio Canal Company would answer he would make no objection. The vote was a close one, the bill being laid on the table by 21 yeas to 19 nays.

Nothing daunted by these successive failures, the railway company returned to the quest of a congressional subscription in 1832. In a memorial dated January 11, it is recited that the road is completed as far as Frederickstown, Md., a distance of 60 miles, and that the company is determined zealously to prosecute the work to its termination. Its capital of $4,000,000 is insufficient, however, and the memorialists respectfully solicit a subscription.[14] As usual, a bill was introduced, only to meet the same end as its predecessors. In debate upon this bill the advantages of railways over canals were stated and low freight rates by rail were cited. The Baltimore & Ohio's stock was quoted at very low figures as a result of injunctions obtained by the Chesapeake & Ohio Canal Company.[15]

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[11] See above, p. 218 ff.

[12] *Cong. Debates,* VI, Pt. II, 1136.

[13] *Cong. Debates, 1829–36,* May 22, 1830, VI, p. 453.

[14] *Sen. Docs., 1831–32,* II, No. 63.

[15] See above, p. 219.

The bill being laid on the table, efforts were twice made to reconsider it, but were negatived by small majorities.

With the failure of this attempt, the railway seems to have realized the futility of trying to secure such aid from Congress under existing conditions.

The cause was next taken up in a resolution passed by the general assembly of Ohio.[16] That body bade its representatives in Congress use all means expedient to procure aid for the Baltimore & Ohio, on the ground that it was of great importance to the western states and to the whole union. At about this time, too, a mass meeting of the citizens of Uniontown, Pa., was held in favor of an appropriation for the Baltimore & Ohio railroad, and its proceedings appear as a congressional document.[17]

For nearly a decade from this period no open effort seems to have been made,—at least no memorial or bill for a subscription appears in congressional documents. A last movement in this direction appears in the Senate *Journal* for 1845–46,[18] where is recorded a resolution submitted by Mr. Johnson (Md.). Mr. Johnson proposed that the committee on military affairs inquire whether it was not expedient for the defence of the country to subscribe to its stock or otherwise aid the Baltimore & Ohio Railroad Company to complete its line to the Ohio river. No action was taken by the Senate.

These various efforts, direct and indirect, of the Baltimore & Ohio Railroad Company comprise the greater part of the history of proposals for congressional stock subscriptions in railways down to 1850. Other subscriptions that were mentioned between 1825 and that date may be briefly summarized:

1. 1829—Memorial and bill for subscription for 2,500 shares of stock in the S. C. Canal and Railroad Company. Bill got as far as first reading.[19]

2. 1830—Resolution to inquire into the expediency of a subscription to the Ohio Canal and Steubenville Railroad Company.[20]

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[16] *Exec. Docs., 1835–36,* IV, No. 193.

[17] *Sen. Docs., 1835–36,* IV, No. 276.

[18] p. 243.

[19] *Sen. Docs., 1828–29,* No. 91. See *S. J., Sen. Bill* No. 92.

[20] *H. J.,* Mar. 29, 1830.

3. 1832—Memorial of Brunswick Railroad Company (Ga.) for $20,000 stock subscription; referred to committee on roads and canals; no action.[21]

4. 1835—Inquiry into expediency of stock subscription to the Charlestown & Ohio Railroad Company.[22]

5. 1837—Memorial of Falmouth & Alexandria Railroad Company (Va.) for a stock subscription; no action.[23]

Early Appropriations Donated to Internal Improvements

Between 1806 and 1825, inclusive, Congress made some twenty-one distinct appropriations for roads and canals.[24] During this period a total amount of $463,120.00 was so appropriated, over one-half of this sum being expended on the construction and repair of the Cumberland Road and $25,000 going to extend the Carondolet canal.[25] In 1826, $20,000 was appropriated for ascertaining the best route for a canal from the Atlantic to the Gulf,[26] and from 1825 to 1828 nine acts were passed making appropriations for roads.

Proposals for Appropriations to be Donated to Railways

Such being the early history of congressional donations of money to works of internal improvement, surely the railway might expect similar assistance. But what are the facts? In 1833–34, Mr. Tipton presented two applications for government aid to proposed railways: one a petition of citizens of Indiana and Michigan praying for aid in constructing a railway between Lakes Erie and Michigan,[27] another a resolution of the citizens of LaGrange county, Indiana, in favor of an appropriation for the same object.[28] These applications brought no result.

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[21] *S. J.*, Mar. 1, 1832.

[22] *H. J.*, *1835–36*, p. 173.

[23] *Rep. of Com.*, II, No. 238.

[24] *Laws*, IV, 11, 58, 356; VI, 113, 219, 266; and indices. The great majority of these appropriations were made for roads in the South.

[25] *Laws*, IV, 201. This was the first canal appropriation. Canal extended from Lake Ponchartraine to the Mississippi river.

[26] *Laws*, VII, 435.

[27] *S. J.*, *1833–34*, p. 104.

[28] *Ibid.*, p. 141. Railroad from Maumee Bay to Lake Michigan.

In 1836 the House resolved to inquire into the expediency of making an appropriation for the contemplated railway from Cincinnati, O., to Charleston, S. C., on condition that the railway company enter into a contract with the government for transporting the mails and public property.[29] No report upon the matter is found and no appropriation was made.

Three years later citizens of Eastern Florida sought to have an appropriation for a road between St. Augustine and Picolata applied to a railway over the same route to no avail,[30] while in 1840 the people of Detroit and vicinity urged Congress to appropriate $100,000 for the completion of a railway from Detroit to the northern boundary of Ohio in vain.[31] In this latter year, too, the Senate passed a resolution that its committee on military affairs be instructed to inquire into the expediency of a grant of money or land to the state of New York for a railway along the St. Lawrence between Lakes Ontario and Champlain.[32] The military advantages were the arguments made in favor of these last two proposals.

In 1844 an appropriation was asked for a canal or railway across the peninsula of Florida in order to remove the necessity of passing around the cape.[33] This work was to be done by the government largely for military purposes.

Proposals that Congress make advances on the two per cent. funds[34] might be treated here, but appear more logically in connection with land grants, inasmuch as such funds were derived from land sales.

Summary and Conclusion

As foreseen, the conclusions to be drawn from this chapter are largely negative. No appropriation for granting monetary aid to railways was made down to 1850. No bill, whether for a stock subscription or a donation of money, passed either branch of Congress. Indeed, memorials and bills for such grants were relatively few and do not indicate any general movement for this sort of assistance by the government.

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[29] *H. J., 1835-36,* April 11, 1836.
[30] *H. J., 1838-39,* p. 286; see above, p. 239.
[31] *Sen. Docs., 1839-40,* VIII, No. 604.
[32] *S. J., 1839-40,* May 12, 1840.
[33] *Cong. Globe,* XIII, Pt. I, 131; *Sen. Docs., 1843-44,* No. 62.
[34] e. g., *S. J., 1836-37,* p. 30.

Some inferences of a more positive nature may be made, however. While the reasons for the failure of such proposals for monetary aid as were made in Congress are not stated in the documents, they are pretty clear in the light of previous chapters. Down to about 1830 several stock subscriptions were made and much money was donated to roads and canals; but at that time national internal improvements fell into disfavor in a majority of the sections of the country, and it was then that railways began seeking aid. Furthermore, railways were more unpopular than canals or highways. Then, too, in the earlier part of the period, when there was yet hope for an appropriation, doubt existed as to the superiority of the railway. These reasons, in great part, at least, account for the failure of the proposals noted above.

The movement in this phase of railway history, so far as one is indicated, seems to be this: Well down toward the close of the third decade donations of money predominated, which may well be accounted for by the fact that corporate or capitalistic activity was but little developed; after 1825 various subscriptions to the stock of canal companies indicate an increasing prominence of corporate activity, and the railway entering the field of transportation shortly endeavored to get monetary aid in the form of subscriptions to capital stock; between 1828 and 1837 a relatively large number of proposals for stock subscriptions in railway companies came before Congress, it being significant that the end of this movement coincides with the downfall of state activity and a growing tendency to regulate railways;[35] and between 1833 and 1840 there were scattered efforts to obtain donations of money which were of little importance, and serve to illustrate the way in which sectional interests lead men to favor what is generally opposed. The people to be benefited by the Charleston & Hamburg (S. C. Canal & Railroad Company) or Brunswick railways were ready enough to ask Congress for subscripions to their stock or donations of money, though living in the heart of those sections opposed to federal co-operation in such undertakings and being themselves supporters of states' right doctrines.

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[35] Above, p. 265.

CHAPTER XI

IMPORT DUTIES AND RAILWAY IRON

It is not the aim of this chapter to add to the general history of duties on imports; the general conclusions of authorities on the tariff history of the United States will be accepted. No history of railways would be complete, however, without a discussion of duties and remissions of duties laid on the raw material of railways, and it is the purpose of the present chapter to treat fully the rise and fall of tariffs on railway iron during the first half of the nineteenth century.

Earlier Import Duties on Iron

The first tariff act, that of 1789, was a brief one, and though its wording indicates that it was passed for both revenue and protection, its rates were so low that it was practically a revenue measure. In general, questions of protection were not concerned, but in the case of certain of our "infant industries," such as hemp, cordage, glass, nails and iron manufactures, specific duties were laid, with a view to encouragement and protection.[1]

During the next twenty years as many as twenty acts dealing with tariff questions were passed, in which series the revenue idea was certainly predominant. Then came the embargo and the non-intercourse acts of 1807 and 1809, followed by the war of 1812, which events made a period of restriction that was equivalent to one of high protective tariff in shutting out foreign competition.

At the outset of the war duties on imports had been doubled, but in spite of this war tariff the peace of 1815 brought a flood of imports that induced Congress to pass the "moderately protective" act of 1816. Under this act pig iron was subject to a 20 per cent. ad valorem duty and 45 cents a hundredweight was levied on hammered bar iron. The duty on rolled iron bars was considerably higher and "was the only one of the iron duties which gave distinct and vigorous protection."[2] In 1818, however, a special act placed higher duties on iron manufactures in general.

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[1] Taussig, *Tariff History*, p. 15.

Following the hard times of 1819–23 a strong protection movement developed and in 1824 duties on iron were increased along with others. Four years later a further raise was made by the "tariff of abominations,"[3] and again the degree of protection afforded rolled iron was much greater than in the case of the hammered product.

Thus it is obvious that from the earliest tariff legislation there was a tendency to protect the iron industry, and after 1816 protection was distinctly the policy adopted toward this industry, the duty being raised in 1818, 1824 and 1828. Upon rolled iron imports especially heavy duties were laid.

Condition of the Iron Industry; Importance of Iron Imports to Railways

Just at this time of high tariff and growing duties on iron it was that railway construction in this country began. Clearly if these new undertakings must depend to any great extent on foreign supplies of iron this condition would hamper them. What, then, was the condition of our iron supply, both raw material and manufactures?

The distinction between rolled and hammered bar iron noted above suggests one factor to be reckoned with. England was in advance of the rest of the world in adopting the process of rolling iron. The rolled bars were inferior in quality, but they were so much more cheaply and rapidly made than those produced by hammering that their manufacture represented great progress. The United States, however, clung to the older process, and, ostensibly to shield the consumer from poor iron, placed relatively high duties on rolled iron.

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[2] *Ibid.*, p. 51.

[3] May 19, 1828, *Statutes at Large, 20th Cong., 1st sess.*, ch. 55. Iron in bars or bolts not manufactured by rolling, 1 cent per pound; bar or bolt iron made by rolling, $37 a ton.

This country, too, was very slow to adopt the use of coke instead of charcoal for smelting, while without such a change successful competition with coke-using producers was difficult if not impossible. Just as the existence of canals and highways retarded the introduction of the railway on the continent, so the abundance of forests in the United States for a long time impeded the introduction of coal in iron smelting.

For these reasons, with others, our iron output was relatively small,[4] and in spite of protective tariffs a considerable part of the supply was imported. This is especially true of rolled iron. Now, rolled iron bars form one of the great items of railway expenditure, and any restriction upon the supply would seriously affect the growth of railways. The supply of rails had to be drawn almost entirely from abroad; heavy tariff duties lay upon such imports; the railway was just beginning to grow—these are the factors. In 1828, the year after it was chartered, evidence occurs showing that the Baltimore & Ohio Railroad Company was endeavoring to secure a remission of duty on iron for railways.

At this date Mr. Smith (Md.) laid a document on the table which consisted of a number of letters from American iron manufacturers stating that they were unable to supply iron rails at a price which would enable them to compete with rails of English manufacture.[5] That of Thomas Ellicott, president of the Avalon Company is typical. In reply to the suggestion that "the Avalon Company are prepared to furnish rails suitably formed for the purposes of constructing the proposed road from Baltimore to the Ohio river," he stated that "they can-

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1828	130,000	tons (pig iron)
1830	165,000	"
1832	200,000	"
1842	215,000	"
1850	564,755	"

"The furnaces were small down to 1838 * * * and producing two to four tons of iron a day."

Bolles' *Indus. Hist. of U. S.*, p. 202.

[5] *Sen. Docs., 1827-28*, No. 192. Presented in connection with Senate bill. See below.

not furnish the iron upon as cheap terms as it can be imported, even if the present duty[6] be exacted,'' and drew the conclusion that free importation of iron for the specific object of railways should be granted. In answer to objections made by iron manufacturers, he argued that in any case they would remain in the same position held prior to the introduction of railways, while in all probability the growth of public improvements would increase domestic consumption. From the consumers' standpoint the retention of the duty would mean increasingly burdensome prices because of the relatively great demand for the small domestic supply which would follow the growth of railways. To the argument that money would have to be sent abroad to pay the wages of foreign labor,—and this argument seemed most important to him,—Mr. Ellicott replied that the construction of the railroad would mean the growth of a labor market in this country that would more than counterbalance such a loss. This would come about through reducing transportation expenses, which would make a surplus production profitable, and exports and imports and revenue from imports would be increased as a result.

To sum up, the situation in 1828 was this: on the one hand, iron manufactures were backward and could not furnish a cheap supply of rails, on the other hand, railways were beginning to grow and demanded such a supply; on the one hand, there was a protective duty on iron bars, on the other hand the railway was struggling for existence; there was need of protection, and there was need of importation. The letter just quoted presents the railways' side, while at the same time it indicates the opposition of iron manufactures.

THE MOVEMENT FOR FREE RAILWAY IRON: 1828–1832

1. *The debates of 1827–28*

On April 23, 1828, a bill authorizing the Baltimore & Ohio Railroad Company to import iron for the construction of that work was taken up and debated in the Senate.[7] This bill, which included machinery, provided that previous to any such importation the president of the railway company should file a copy of the order with the collector of the port. Moreover, he was to swear that the iron or machinery was imported for the sole use of his railway and that it would not be used for any other purpose. An amendment to the effect that the same privileges be granted to all states and railway companies was agreed to, and a provision requiring that a bond be given to insure proper use of the iron was later added. Thus amended, this measure passed the Senate, but failed to become a law, being rejected by the House.

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[6] $37 a ton.

[7] *Cong. Debates, 1827–28,* IV, Pt. 1, 678, 692, passim.

The main line of argument of those who supported the bill was this:[8] The railway possesses great utility for society and should be encouraged; our iron supply is inadequate, or at least we lack the skill to produce rails in sufficient quantity and quality; if the duty is not remitted the railways will recoup themselves by charging the public higher rates.

Those who opposed the measure argued as follows: It is unnecessary, for the country has abundant supplies of iron which will be utilized as soon as demand arises, when skill will also develop; it is unjust, for it discriminates against (a) iron manufactures as compared with railways, (b) importers of iron other than railway companies, (c) other materials imported for railway construction; it is unwise, as departing from the accepted policy of protection, and as being to all intents and purposes a grant of money to the companies benefited.

With regard to the ability of the United States to produce the necessary supply, opinions differed sharply, although a majority of the speakers held importations necessary. Mr. Barnard (Pa.) stoutly maintained that Pennsylvania alone produced some 21,800 tons of bar iron annually, and could supply the demand. It was estimated that from 12,000 to 15,000 tons (36 tons per mile) would be required for the Baltimore & Ohio.

The attitude of the southern senators is interesting in this connection, their position being well put in the words of Mr. Smith (S. C.) who "was," he said, "placed in a dilemma by this bill. He was forced to vote against his doctrines with regard to internal improvements, or to vote for the protection of domestic manufactures.'"[9] The South wanted neither protection nor federal internal improvements, and both Mr. Smith and Mr. Hayne (S. C.) voted for the bill on the avowed ground of taking the lesser of two evils.

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[8] The analysis and statement of the following arguments are the writer's.

The House added but little to the discussion.[10] Here emphasis was laid on the idea that the proposed remission was equivalent to a money grant, Mr. Buchanan (Pa.) stating that, "It proposes nothing less than to make an absolute donation of about $300,000." It was proposed that a bounty be put upon American iron equivalent in amount to the duty to be remitted. In behalf of the bill the argument was made that foreign iron did not set the price of iron in this country, and therefore domestic producers in the interior would not be injured by importations. This reasoning was based on the statement that two-thirds of Pennsylvania's iron output went westward, only about one-third going to Philadelphia. It is a fact that iron manufactures to the west of the Alleghenies were effectively protected, except as to articles of high specific value, by the difficulties of transportation prior to the railway era.

By this time the documents presented by Mr. Smith (Md.), containing among others the letter of the Avalon Iron Company's president, were available, and in the House much was made of the fact that ironmasters themselves admitted inability to meet the demand. Out of 90,000 tons annually consumed, said Mr. Drayton, only 30,000 tons were furnished by our own factories.

In general the discussion centered around the opposition of iron-producing regions, notably Pennsylvania, whose representatives led the attack, and whose citizens memorialized Congress against allowing the importation of iron free of duty.[11] It will be remembered that Pennsylvania was prominent in conducting internal improvements and had projected many railways, so it would seem that there were necessarily conflicting interests there and that her stand against the bill showed the great strength of the iron manufacturers and of the protection idea in that state. The iron producers of Pennsylvania, however, might well have supplied her own demands.

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[9] *Ibid.*, p. 694.

[10] See *Cong. Debates*, *1827-28*, IV, Pt. II, 2503, 2733.

[11] *H. J.*, *1827-28*, p. 727. Citizens of Philadelphia.

2. *The drawback of 1830*

Though the bill for free railway iron failed to pass, the movement which it represented obtained concessions two years later in the tariff act of 1830. Section nine of that act provided for a duty of 25 per cent. ad valorem upon iron actually used for railway purposes, the duty paid on iron for that purpose being reduced to the 25 per cent. point by the payment of drawbacks.[12] Thus upon iron costing from $65 to $75 a ton this would mean a duty of from $16.25 to $18.75 a ton as compared with the duty of $37 a ton levied by the act of 1828.

3. *Free railway iron bill passes, 1832*

Previously to 1830 railway construction had hardly begun, and the demand for measures favoring such undertakings could not have attained great volume. By 1832, however, railways projected or under construction were quite numerous,[13] and the agitation which had failed in 1828, and obtained concessions in 1830, succeeded in 1832.[14] In that year Congress passed a "Railroad Iron Bill" which amended section nine of the tariff act of 1830 so as to allow a complete drawback on iron imported by states or incorporated companies for railways or inclined planes and actually put to that use, the iron to be laid down within three years after the time of importation. By this measure states and incorporated companies were exempted from the 25 per cent. ad valorem duty, and railway iron, under certain restrictions, was placed on the free list.

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[12] *Cong. Debates, 1829-80*, VI, Pt. II, Appendix, p. xxxix. "From and after September 13, 1830, all iron manufactures for railroads shall be liable to the same rate of duty which is now imposed on bar or bolt iron, * * * . Provided, that when it shall be satisfactorily proved to the Secretary of the Treasury that any of the said iron imported for the purpose of being applied in the construction of any railroad or inclined plane by any State or incorporate company, has been actually and permanently laid on any such railroad or inclined plane; that then, and in that case, he may allow to such State or company, a drawback of the duty on such railroad iron so laid; or if the duty on the same shall have been actually paid, he may refund the same. Provided, such drawback, or repayment shall not reduce the duty * * * below 25 per cent. ad valorem, nor upon any less quantity than 20 tons."

[12] Above, p. 284.

[14] *Cong. Debates, 1831-32*, VIII, Pt. I, p. 990.

Conditions Between 1832 and 1841

The act of July 14, 1832, did not settle matters, however, and for three reasons: it restricted the number of those who might profit by it; it did not sufficiently define what kinds of iron should be included; and there were many petitions for relief, remissions, and extensions of the time set by the act.

In the first place, both the act of 1830,[15] and that of 1832 were so worded as to apply to "states or incorporated companies" only, and this limitation aroused some objections. In debate on the Senate bill for free iron, Mr. Dallas moved to amend it by striking out the words, "by any state or incorporated company," advocating that the provisions of the act be extended to individuals who might import iron for the use of a railroad.[16] His proposal was not favorably received, and shortly afterward a memorial was presented to Congress by sundry citizens of Pennsylvania to this effect: "The subject to which we wish to call your attention is the unequal burden we bear of the duty on railroad iron. The existing tariff gives the advantage to corporate bodies * * * while individuals are obliged to pay the whole amount of duty thereon."[17] The memorialists stated that "lateral" railroads, which were connecting links between main lines, were invariably built by individuals, and prayed that the deductions of duty on railroad iron be extended to them. The memorial was not successful, and the act remained unchanged in this regard. This fact explains the appearance in the Senate documents of 1836–37[18] of a memorial of certain individuals in St. Clair County, Illinois, praying for the remission of duty on railway iron to be imported for building a line from their coal mines to the Mississippi river.

In the second place, there was dissatisfaction and doubt as to the kinds of iron to be admitted free for railways. Congress was memorialized to remit accrued duties on locomotives that had been imported,[19] and a bill passed the House "to remit the duties upon locomotive steam engines."[20] This measure failed to pass the Senate. Various unsuccessful efforts were made also to have duties remitted on car wheels and iron parts of cars.[21] Finally, in October, 1836, an act explanatory of the act of July 14, 1832, was passed, according to which spikes, pins, and chains used in the construction of railways were not to be included in that description of iron which was released from the payment of duties. In a word, there was an attempt to include railway iron other than bar iron for rails,[22] which attempt failed.

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[15] See above, p. 304, note.

[16] *Cong. Debates, 1831–32*, May 31, 1832 (*Sen.*), VIII, Pt. I, p. 990.

[17] *Sen. Doc., 1833–34*, I, No. 25. This memorial is found again as *Exec. Doc.*, No. 167, *1834–35*, IV.

[18] Vol. II, No. 105.

In the third place, there was a long series of memorials and bills for the purpose of securing the remission or repayment of duties on importations prior to the acts of 1832 or 1836, or of securing an extension of time beyond the three year limit for laying down the rails; many of these bills were passed. These bills and memorials became extremely numerous about the time of the crisis of 1837. Two concrete cases may be given to illustrate.

In 1836 the committee on ways and means reported[23] on a memorial of the Lexington & Ohio Railroad Company for relief. The company had been chartered in 1830 by the legislature of Kentucky to construct a road from Lexington to the Ohio river near Louisville, and during the years 1832 and 1833 had imported iron from England, paying part of the duty, and giving bonds—according to law—for the remainder. The duty paid had been refunded to the company after the act of 1832, and bond was given to pay duty on all iron not laid down within three years. The company was unable to complete the road in that time, and so much iron remained unused that $1,984 became due on its bonds, which amount was paid under order of the Treasury department. The railway proceeded with its work and by 1836 had completed 28 miles of road. It then memorialized Congress asking that the $1,984 be refunded upon assurance that the iron was to be used for railway purposes, and the committee reported favorably. A bill (Ho. Bill No. 160) was introduced for the company's relief, which passed both houses and became a law on July 2, 1836.[24] This is a typical case of aid granted to a railway through extension of time for laying down imported rails, though here the amount involved was small.

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[19] *S. J., 1832-33*, p. 158. Little Schuylkill Nav. R. R. & Coal Co.

[20] *H. J., 1833-34*, p. 254; *S. J., 1833-34*, p. 385, reported in Senate.

[21] *H. J., 1834-35*, pp. 99, 103, 108, 111; *S. J., 1834-35*, Feb. 12, 1835.

[22] That there was doubt as to the meaning of the act is shown by the passage of the explanatory act and by the fact that certain duties paid on spikes imported from England previous to the explanatory act were remitted in 1836, 1838, 1839. (See *Statutes at Large, 25th Cong.*, 2 sess., c. 257, and *Ibid.*, 3 sess., c. 6.)

[23] *Rep. of Com., 1835-36*, I, No. 152.

One of several releases of duties paid prior to the explanatory act of 1836 was "an act to refund to the New Castle & Frenchtown Turnpike and Railroad Company certain duties paid by them," etc.,[25] according to which the secretary of the treasury was ordered to refund duties paid on shipments of spikes, clamps, and bolts made in 1836 and 1837 amounting to $2,003.85. The railway had to prove that the duty was not covered by a reduction in the price paid for the iron, and that the orders had been placed prior to the act of 1836. At about this time similar acts were passed in aid of the Baltimore & Susquehanna and the Philadelphia & Wilmington railway companies.[26]

Toward the close of the decade, 1832–41, however, signs of a growing opposition to remissions begin to appear. The House called for a statement of the amount of duties refunded since 1832,[27] and several bills for extending time to railroads failed to pass.[28] In 1840 a bill was introduced the object of which was to repeal the act of 1832,[29] and though it did not pass, it may be taken to indicate the turn of the tide.

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[24] *H. J., 1835-36*, pp. 83, 1203.

[25] See *H. J., 1837-38*, p. 554. *Statutes at Large, 25th Cong.*, 2 sess., Index.

[26] *Statutes at Large, 25 Cong.*, 2 sess., c. 257, and *Ibid.*, 3 sess., c. 6.

[27] *H. J., 1838-39*, p. 284.

[28] *H. J., 1838-39*, pp. 428, 499, 725, etc.; *S. J., 1839-40*, pp. 53, 57, 127.

[29] *H. J.*, Feb. 4, 1840.

CHAPTER XII

IMPORT DUTIES AND RAILWAY IRON (Continued)

The Act of 1832 Repealed

On August 30, 1841, Mr. Buchanan (Pa.) offered an amendment to the revenue bill then before the Senate. The amendment was to the effect that the act of July 14, 1832, which had released from duty iron used in railway construction, be repealed, and that a duty of 20 per cent. ad valorem be imposed on such iron.[1]

In debate upon the amendment the statement was made that an English monopoly in iron manufactures had been fostered by allowing free importation, and that payments for railway iron had been the cause of a serious drain upon our supply of specie. On a par with this argument was the cry of favoritism toward corporations, Mr. Walker saying that "he would prefer to discriminate in favor of the planters and farmers, and not tax them by grants of exclusive privileges for the benefit of corporations,"—virtually half a million dollars a year was being granted to these wealthy companies.

Mr. Clay's reasons for supporting the amendment are very illuminating. In 1832, said he, when railway iron had been exempted from duty, the treasury had been full to overflowing; this was not now the case, and consequently a duty should be imposed. Henry Clay was not one to make a measure unpalatable and abrupt, however, and he suggested that companies which had already undertaken their work ought to have equal benefits of the present law. One cannot but be impressed with the fact that tariff policy is more often the result of industrial and financial conditions than their cause. The state of the nation's finances, the existence or absence of a surplus, has always colored the views of "statesmen" toward tariffs and internal improvements, and the influence of this element is to be seen in the congressional history of railways as recorded in the preceding pages[2] and will appear again. Here Mr. Clay gives clear evidence of the operation of this factor in at least one instance.

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[1] *Cong. Globe, 1841,* X, 402.

The chief resistance to the amendment came from the South, Mr. Calhoun and Mr. Cuthbert speaking strongly in favor of continuing free iron. In the South railway construction was not far advanced and consequently that section had not profited by the remission of duties to such an extent as had the northern States. Out of justice to the South, it was urged, "the law ought not yet to be repealed." Mr. Calhoun referred to the work of connecting the southern coasts, both Atlantic and Gulf, with the interior, upon which "depended in a great degree the commercial prosperity of the South," arguing that the work should not be burdened with taxes.

It is worthy of note that at least two of the speakers emphasized the idea that this exemption from duties was equivalent to a grant of money: Congress "had virtually made large appropriations for internal improvements" by the act of 1832.

As a result of the debate thus briefly recorded the amendment was so modified as to postpone the repeal until March 3, 1843, and thus modified it became law, being approved September 11, 1841.[3]

THE TARIFF ACT OF 1842

The last general tariff act mentioned above was that of 1828,[4] which considerably increased the duties on iron products. In 1833, however, so serious did the opposition of the South become, that a "compromise tariff" was enacted, according to which duties were to be reduced by degrees during the following decade till a general 20 per cent. ad valorem level was reached in 1842. The act of 1841, then, which put an end to the free importation of railway iron, obviously aimed to put such iron on the same footing with other imports, and hence the adoption of a 20 per cent. duty to go into effect after 1842. When the 20 per cent. level was finally reached, however, it was not maintained, and in the same year, 1842, a tariff act was passed by the Whig majority then in power which was avowedly protective.[5]

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[2] E. g., pp. 268, 364.

[3] *Acts of Congress, 1841,* c. 24, sec. 5: And be it further enacted, That the act entitled "An act to release from duty, iron prepared for, and actually laid on railways and inclined plains" * * * be * * * repealed, and there shall be * * * paid, on such iron hereafter imported, a duty of 20 per cent. ad valorem: Provided, That such repeal shall not operate * * * prior to the third day of March, 1843.

[4] Above, p. 299.

Section four of the act contains its provision concerning railway iron: "Provided, also, That iron imported prior to the third day of March, 1843, in bars or otherwise, for railways or inclined planes, shall be entitled to the benefit of the provisions of existing laws, exempting it from the payment of duty * * * and all such iron imported from and after the date aforesaid shall be subject to and pay the duty on rolled iron." By this act the low duty of 20 per cent. ad valorem was replaced by a specific duty of $25 per ton, to take effect in 1843.

Conditions Between 1843 and 1846: Rails versus Railways

A situation now ensued which was quite similar to that existing between 1828 and 1832: on the one hand, there were those interested in a rapidly spreading net of railways; on the other were the iron manufacturers, who maintained that they were able to meet any demand if only they were given protection. But in the condition of the iron industry there had recently come a change. In 1828 charcoal had been entirely depended upon for smelting, and the concomitant necessity for great forest areas and the cost of cutting and hauling timber had placed restrictions all but insuperable on the industry. By 1843, however, anthracite coal was fast coming into use, and in 1844 we find Mr. Bialack (Pa.) saying, "Previous to the successful experiments made with our anthracite coal as a fuel in the manufacture of iron, there was perhaps some reason for the course pursued (i. e. in remitting duties on railway iron). There is, however, no occasion for it hereafter."[6] A memorial presented by the New York & Maryland Iron and Coal Company tells of an expenditure of some $50,000 "with the view of entering extensively into the manufacture of iron for railroads" and a production of 10,000 tons per annum was promised, to equal the foreign product both in quality and in price.[7] In short, the statement that assurance of the permanence of the present law was all that was needed to bring about an extensive production in a very short time seems to have been well founded. Between 1842 and 1846 the output of pig iron nearly tripled.[8] By 1850 domestic producers were making some 44,000 tons of rails.[9]

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[5] *Acts of Congress, 1841-42*, c. 270.

In 1842 the iron industry was in a better condition by reason of the very expansion of the railway system. The two industries are always interdependent; they were particularly so in the earlier period. Then iron and coal deposits lacked accessibility and adequate transportation, while on the other hand railways lacked iron. The ironmasters urged that if only railways were built, they could supply the iron; the railway projectors said they needed iron to build their railways. In the later period mines had been rendered accessible and production cheapened by railway development, which fact tended to strengthen the position of iron-producers in this struggle for protection, and weaken that of the railways.

But with the nation's recovery from the panic of 1837, a fresh crop of railways sprang up. Railway construction became relatively rapid, and this made for free railway iron; for in spite of the improvements in manufacture and increased output, the demand outran the supply, prices rose, and rails were imported. The passage of the tariff act of 1842 was followed by a flood of memorials from various railways praying for relief from import duties. The Senate at its 1842–43 session passed two bills for the relief of railways,[10] but they failed in the House. During the next session there were bills for the relief of states and railway companies in both Houses, and some fourteen memorials for such aid were presented in the Senate alone.[11] Memorials continued to come in during the 1844–45 session, several bills were introduced for remitting duties on railway iron in certain cases, and a bill granting relief to Michigan was passed by the Senate.[12] Clearly there were strong forces at work for the repeal of section four of the act of 1842 and for the free importation of railway iron.

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[6] *Cong. Globe, 1843-44,* XII, Pt. II p. 383.

[7] *Ibid.,* XIII, Pt. I, p. 410.

[8] One effect of the tariff, however, was to give a new lease of life to abandoned charcoal furnaces which contributed to the output. After the low tariff of 1846 went into effect there was a decline in the output from 765,000 tons (1846) to 564,755 tons (1850).

[9] *Report of the Iron and Steel Association for 1876,* p. 165.

[10] *S. J., 1842-43,* pp. 121, 211.

Those who favored protective tariff and the iron interests were too strong, however, and the free railway iron advocates could not quite carry their measures. As in former cases, the South was prominent in her advocacy of free railway iron, and her speakers dwelt upon the high social utility of railways while stating that they were the least profitable ventures in the industrial world. If the remission of duties had amounted to making large donations to railways, the imposition of a duty would just as truly be a gift to the manufacturers of railway iron.[13]

Pennsylvania again led the Middle States in defending the tariff of 1842 and protecting the iron industry, discrimination, favoritism to railways, corporate avarice, and railway mail abuses forming the burden of their plea.[14] The upshot of the matter was that proposals for altering the tariff in behalf of railways failed in the Senate by a close vote, 21 to 20, and the consideration was postponed.[15]

The Railway Lobby

It is in the debates on this subject and during this period that the existence of an organized railway lobby appears. References to ''corporate avarice'' abound and ''corporation contests'' are referred to as disturbing legislation. Mr. Buchanan said, ''If you defeat them at this session, they (the railway companies) will be here in greater force than ever at the commencement of the next. Their importunity will never cease whilst the least hope of success shall remain, and we have learned from our experience that they have both the ability and the will to select shrewd and skillful agents to accomplish their purposes before Congress.''[16] From their beginning, railway companies had memorialized Congress and sought to influence its procedure, but the growth of a lobby may be assigned to the period following the passage of the tariff act of 1842. In 1828 railways had scarcely begun, and until about 1842 there was no great general measure before Congress which affected railway interests as such, as did the tariff on railway iron.

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[11] *S. J., 1843-44*, p. 328 and index, *H. J., 1843-44*, pp. 327, 398 and index.

[12] *S. J., 1844-45*, p. 223. This fact is to be associated with state railway activity prior to 1837, which terminated shortly thereafter. The iron in question had been imported in the spring of 1839 and could not be laid within the three years because of financial difficulties. Having been laid in the fall of 1842, Congress was memorialized to remit duties and a favorable committee report was submitted. (*Rep. of Com., 1843-44*, II, No. 478.) For discussion see *Cong. Globe, 1844-45*, XIV, 341.

[13] *Cong. Globe, 1843-44*, XIII, Pt. I, p. 661.

[14] *Ibid.*, Appendix, 680.

[15] *Ibid.*, Appendix, p. 682.

The Tariff of 1846

The tariff act of 1842 had been passed by a Whig congress, the Whigs being supporters of the ''American System'' and tariff for protection. At the election of 1844 the Democrats came into power and two years later enacted a tariff that did away with all specific duties and greatly reduced ad valorem rates. By the act of 1846 the rate on all dutiable goods averaged about 26 per cent.; but the duty on bar iron of all kinds was higher than the average, being 30 per cent. ad valorem. This was higher also than the 25 per cent. rate of 1830 or the 20 per cent. rate in force just prior to the act of 1842, but as prices had fallen the amount paid was considerably less. Still, the tariff as a whole was a step toward freedom of trade, and the laying of a duty heavier than the average on railroad iron,—and that, too, in the face of the agitation for free iron for railways,—seems to indicate that the act was in no wise a concession to railway interests.

This act of 1846 was the first to abandon the old discrimination against rolled bar iron in favor of hammered bars,[17] the

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[16] See *Cong. Globe, 1843-44*, XIII, appendix, p. 680 ff.

[17] See above, p. 299.

30 per cent. rate applying to both alike. This indicated an advance in methods of iron manufacture, for the real object in discriminating against rolled iron had been to protect our manufacturers who produced hammered bars alone.

REPORT ON THE MEMPHIS CONVENTION'S MEMORIAL

At about the time of the passage of the preceding act, a special committee to which had been referred the memorial of the Memphis convention brought in its report. The report, which was made by Mr. Calhoun (S. C.), stated that while the government could not in that case give aid of much value in the shape of land grants, it could give great aid by removing a burden imposed by its own acts, namely, the duty on iron. The committee stated itself to be of the opinion "that, on every principle of expediency and fairness, not to say justice, this burden ought to be wholly removed, or at least reduced to the rate which a strict regard to revenue principle would demand." As a basis for its conclusion, the committee introduced statistics which are of interest: the cost of iron being one of the heaviest items in the expense of constructing railways, the duty amounted to a charge of upwards of $2,000 per mile, or about one-sixth of the average aggregate cost per mile.

The predominant spirit in the report is that of the South, and its value lies in indicating that spirit and in the statistics presented, these probably corresponding to actual conditions.

1846–1850

After the tariff of 1846 nothing of importance as regards the history of duties on imports of railway iron took place in Congress. At the 1845–46 session, a bill to remit duties on railroad iron was introduced,[18] and at the following session a few bills, resolutions and memorials on the subject appear.[19] Acts were passed for the relief of the Red River Railroad Company,[20] the Central Railroad and Banking Company of Georgia,[21] and the Wilmington & Raleigh Railroad Company.[22]

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[18] *S. J., 1845–46*, pp. 298, 478, 481.

[19] *S. J., 1846–47*, p. 71; *H. J., 1846–47*, p. 124.
S. J., 1847–48, p. 142; *H. J., 1847–48*, p. 193.

[20] *H. J., 1847–48*, p. 1262.

SUMMARY AND CONCLUSION

The present chapter is the history of a struggle between the opposing interests of iron manufacturers and railway companies. In this particular struggle, general tariff policies, while not necessarily decisive were involved, and though protectionists might make an exception in behalf of railways, they tended to lay duties on railway iron on grounds of consistency and fairness. Where iron interests existed, as in Pennsylvania, this was doubly true. The free-traders of the South and of New England naturally leaned toward the free admission of railway iron, and this policy found favor in the West as railways expanded. The South's hostility to federal aid to internal improvement was entirely ineffectual as a counter force, illustrating the superior power of a policy backed by economic interest.

Early in its history, in 1830, the railway gained concessions, and in 1832 railway iron was placed on the free list. The domestic production was manifestly inadequate, and Congress had hardly given up the idea of aiding internal improvements. Hostility to railway corporations had not attained great growth, nor could the iron interests foresee how great a market they were losing. Above all, revenues were abundant. Between 1832 and 1842 railway iron,—meaning iron for rails under the explanatory act of 1836,—came in duty free; but at the latter date a duty was laid, which was only modified by the act of 1846. In 1842 the national revenue was scant. Moreover, the iron industry was making rapid progress. State internal improvements had just yielded to corporate activity, and toward railway corporations a well developed hostility existed.

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[21] *Ibid.*, p. 1122.

[22] *H. J.*, *1849-50*, p. 819.

The various tariff measures may be tabulated as follows:

TARIFFS ON BAR AND RAILWAY IRON: 1879-1850.[23]

	Bar Iron.	Railway Iron.	Pig Iron Production (gross tons.)
1789	5- 7½ per cent.		
1790	5-- 7⅓ “ “		
1792	10 “ “		
1794			
1804	$0.01 a lb.		
1812	.02 a lb.		
1816	.45-2.50 a cwt.		
1824	.90-3.36 “		
1828	1.12-3.92 “	$37 a ton.	136,000
1830	“ “ “	25 per cent.	165,000
1832	“ “ “	free	200,000
1833 to 1842	gradual fall to 20 per cent.	free.	
1842	$17 to $56 a ton	free	215,000
1843	“	$25 a ton.	
1846	30 per cent.	30 per cent	765,000
1850			564,755

It should not be forgotten that the duties remitted were recognized as so much aid to railways. At the twenty-seventh congress a statement of the entire amount refunded between 1831 and 1841 was submitted:

Amount of duties on railroad iron refunded: 1831–1841[24]

1831	$6,847 90	
1832	336,709 19	
1833	202,210 70	
1834	421,010 34	
1835	529,529 79	
1836	234,194 74	
1837	407,517 05	
1838	910,011 66	
1839	672,376 86	
1840	688,510 97	
1841	391,264 64	(in part)
Total	$4,800,183 84	

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[23] Adapted from Bolles' *Industrial History of U. S.*, pp. 200, 201.

[24] *Exec. Docs., 27 Cong.*, 2 sess., V, No. 265.

Between January 1832 and March 1843, $5,989,992[25] was the amount remitted in duties on railway iron. It is to be observed that the variation in amounts remitted each year may be taken as a rough indication of the growth of railway activity. Comparison with the chart of railway construction on page 365 will show a very close relationship between the two.

That remission of duties amounts to a donation of money would be easy to forget, especially where free trade principles were involved. In debate on the subject, however, opponents to free railway iron constantly reminded Congress of the fact, and it is to be emphasized that the matter of duties on imports of railway iron falls properly under the subject, aid to railways.

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[25] *Cong. Globe., 1843-44,* XIII, Pt. II, Appendix, p. 680.

CHAPTER XIII

THE MAIL SERVICE AND AID TO RAILWAYS

The history of the mail service has been fairly well written,[1] and the mail service, as such, will not be treated in this chapter. The purpose is to analyze and state the various ways in which the desire of our government for securing the safe and speedy transportation of the mails has figured in the aggregate of aid granted to railways.

The mail service has been an important point of contact between the government and the railway from very early times; today the chief instrument in that service is the railway, and about two per cent. of the aggregate gross earnings of the railways of the United States is received for transporting the nation's mail. In 1819 one of the grounds for Benjamin Dearborn's petition for aid in carrying out his invention was that it was well calculated for the conveyance of the mails;[2] one of the reasons for the survey bill of 1824 was the necessity for transporting the public mail;[3] and in 1825 the House resolved to inquire into the utility of railways "as a mode of conveyance for the mail in carriages."[4] In debate over the proposed stock subscription for the Baltimore & Ohio railroad,[5] in 1832, the great facility of railways for carrying the mail was an argument of those who favored the measure. In short, the mail service argument was used from the beginning.

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[1] *Hist. of the Railway Mail Service,* in *Sen. Ex. Doc. 48 Cong.*, 2 sess., No. 40.

A Hist. of the Railway Mail Service, publ. by Columbian Corr. College, Washington, D. C., 1903.

Tunnell, G. G., *Railway Mail Service: A Historical Sketch.*

See above, pp. 238, 259, and references there indicated.

[2] Above, p. 186.

[3] Above, p. 276.

[4] Above, p. 190.

[5] Above, p. 291.

The material concerning the railway mail service to be gathered from congressional sources mainly falls under two heads: regulation and aid. The former subject has been treated in the chapter on the railway and society;[6] the latter will now be considered. In approaching it, two main kinds or classes of aid in connection with the mail service may be distinguished:

I. Special appropriations or land grants, considered as:
  1. Donations, but attended by provisions for mail service, either
    a. Free, or at
    b. Reasonable rates.
  2. Loans or investments, to be repaid by mail concessions.

II. General contracts for mail service with purpose to aid.

I. Obviously the two sub-divisions of class I represent different attitudes or points of view concerning an act the immediate end and nature of which are essentially the same. In some cases it is difficult or impossible to determine under which division an aid falls, and it might well be that in the minds of some congressmen the donation idea predominated over any consideration of mail service, while others regarded the *quid pro quo* of the same grant as its most important content. Generally, however, the dominant idea is revealed in the nature of the act or the speeches for and against the measure. The preceding classification may be illustrated by specific cases.

In 1834 a bill was up in the Senate the object of which was to give the Baltimore and Ohio $320,000, and in return the mail was to be carried free forever.[7] Was this proposition regarded as a donation, or was it considered as an investment in that the appropriation would be compensated for? The utterances of speakers in debate on the measure make the answer sufficiently clear. Mr. Grundy (Tenn.) said he objected to the principle of "giving money to companies in the different states to make roads," and he referred to the fact that Congress had concluded at its preceding session not to levy taxes beyond those necessary for the government's support. Mr. Chambers

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[6] Above, p. 259.

[7] *Cong. Debates, 1833-34*, X, Pt. II, 1752.

(Md.) urged that money had been given to canals, and hoped that the Senate "would, in its liberality, contribute to convert this into a useful improvement, for the use of individuals and the government, and give the sum proposed." He favored the bill on the ground that Congress had been in the practice of making appropriations for institutions of various kinds. The appropriation was opposed by Mr. Preston (S. C.) as being so large a grant that Maryland would be able to discharge her whole civil list by her income from the road.[8] In addition to these indications, the propositions that were made to cut down the period during which free mail service was to be performed to twenty or thirty years emphasized the gratuitous tendency of the bill. In a word, arguments both pro and con indicate that the proposed appropriation was regarded as a donation in which the mail service was more or less incidental. The bill passed the Senate, but was not taken up in the House.

A bill for granting right of way to the Ohio & Mississippi railroad being under consideration,[9] Mr. Cobb (Ga.) moved an amendment providing that the United States mails should be transported over the road at the lowest rates paid to other railways, which amendment was agreed to and the bill passed. Here a grant was made to which the provision for a reasonable rate was incidental.

As an instance in which aid was asked for in the spirit of a loan, to be in some measure, at least, returned in mail transportation, a memorial of the Selma & Tennessee Railroad Company may be presented. The company sought for a right of way and pre-emption, and in return proposed to furnish the government with transportation service, the memorial stating that the land would "be paid for hereafter, at the minimum price, by the transportation of the mails, munitions of war," etc.[10] When a bill granting right of way to the Tennessee and Coosa Railroad Company was under consideration it was agreed by a vote of 133 to 22 to so amend the grant as to require the road to transport the mails as required by the postmaster general, for which compensation was to be given

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[8] Maryland received one-fifth of the passenger returns.

[9] *Cong. Globe, 1847-48*, p. 1030.

[10] *Sen. Docs., 1838-39*, III, No. 184.

"not exceeding that paid for the average of stage service, for the time being, within the states of Tennessee and Alabama."[11]

In discussing a bill for the benefit of the Mt. Carmel & New Albany Railroad Company,[12] Mr. Smith (Ind.) showed that a provision in the bill for free carriage of the mail for twenty years would amount to a payment of about $1.06 per acre of land granted. This bill passed the Senate only, but it is sufficent, in connection with the foregoing, to denote the reality of the second case under the first head of the analysis. Here one ground of the Senate's action in aiding the railway was that the government would be compensated by free mail service.

II. Around the subject of general contracts for the mail service centers the greater part of the material concerning the phase of the congressional history of railways now under discussion. Before the railroad became a factor, a system of contracting for the transportation of the mails had been adopted which was based upon competitive bidding. Reliance was put upon the effectiveness of competition to secure reasonable rates, and during the stage coach régime the results seem to have proved satisfactory; the lowest bid meant in most cases a competitive rate. But when the railway came the system ceased to give satisfaction. Early in the thirties complaints begin to appear that competition was a failure in so far as it affected charges for mail transportation and that the government was paying exorbitant rates. This is but one of the many, many instances of the evils which result from the attempt to apply institutions adapted to one set of conditions to another and a different one.

As early as November, 1834, in a report to President Jackson, Postmaster General Barry stated that it was a subject worthy of inquiry whether measures might not then be taken to secure the transportation of the mail upon the rapidly multiplying railways of the country, and he expressed fear lest these corporations might make exorbitant demands "and prove eventually to be dangerous monopolies."[13]

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[11] *H. J., 1844-45*, p. 430.

[12] *Cong. Globe, 1837-38* (*Sen.*), p. 434.

[13] *Sen. Docs., 23 Cong.*, 2 sess., No. 1.

President Jackson's message of the following year, 1835, suggested the expediency of fixing by law the rates to be paid for the conveyance of the mails, which rates should be graduated according to their average weight. In 1836 the postmaster general urged the necessity for amending the law relative to mail contracts with railways, and the President, in his message of December 5, invited the particular attention of Congress to that subject. The presumption of competition was folly and advertising for bids useless; the power of the postmaster general to pay high prices was practically unlimited; public interest would be furthered by prescribing some equitable basis for mail contracts.

In the same year the committee on post office and post roads made a report in favor of adopting a system of contracting for mail transportation in place of the old system of bids.[14] It was argued that then was the time to do so advantageously, as, on the one hand, the railway companies were in great need of money, and on the other, the national treasury was full to overflowing. The scheme proposed had for its essentials (1) long time contracts, (2) the consideration to be paid in advance, and (3) in case of perpetual charter the government to take a lien on the road as security.[15] Accordingly a bill to authorize contracts for carrying mail upon railroads was introduced, the main provisions of which were along the lines laid down in the committee's report. The postmaster general was to receive propositions from the railway and submit them to Congress, and the government was to have a lien upon the property of the railway to the extent of the amount of money paid. This bill failed to pass, however, and the evils remained unremedied.

An act of July 7, 1838, establishing certain post routes, aimed at improvement, but was too faulty to achieve much. It provided that the postmaster general should have the mail transported on railways, provided he could get it done for not more than twenty-five per cent. over what "similar transportation would cost in post coaches." The great difficulty lay in determining what was similar transportation, and this part of the act gave little satisfaction.

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[14] *Sen. Docs., 1835–36*, IV, No. 291.

[15] See above, p. 254.

Within a year further legislation was deemed necessary, and it was enacted that under the act of 1838 no more than $300 per mile per annum should be allowed for the conveyance of one or more daily mails.[16] In other words, the great weakness of the previous law was remedied by establishing a definite maximum rate.

Finally, in 1845, the necessities of the situation, largely due to the expansion of the postal service, led to the passage of "an act to reduce the rates of postage, to limit the use and correct the abuse of the franking privilege, and for the prevention of frauds on the revenues of the Post Office Department."[17] Section 19 of the act provided for a classification of mail routes on the basis of the size of the mail and the importance and speed of the service. And it was made lawful for the postmaster general to contract with any railway company for carrying the mail either with or without advertising, providing that not more than the $300 allowed by the law of 1839 be paid to railways of the first class, nor more than $100 or $50 to second and third class lines respectively.

This brief account of the subject of mail contracts is presented partly because of its intrinsic importance to a congressional history of railways, but chiefly because of its relation to government aid, for it leads up to the second head of the analysis at the beginning of this chapter,—"General contracts for mail service with purpose to aid."

About the time of the beginning of the agitation for reform in mail contracts, a motion was considered in the Senate to the effect that its committee on roads and canals inquire into the expediency of aiding railways by making payment in advance on contracts with them for carrying the mails.[18] This motion was laid on the table, but it was only one of several proposals for aid after a similar manner. At the same session the proceedings of a mass meeting of the citizens of Uniontown, Pennsylvania, were presented, and among them was one which stated their belief that the government ought to adopt a general system by making contracts with the railway companies for transporting the mails, troops, etc., free of charge "in consideration of a stipulated sum to be paid as the work progresses."[19] The idea was that the government would thus assist in constructing railways by satisfying in advance its side of a contractual obligation, as it were,—free mail service to be rendered by the finished railway in return.

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[16] *Acts of Cong.*, 25 Cong., 3 sess., C. 4.

[17] *Ibid.*, 28 Cong., 2 sess., c. 43.

[18] *S. J., 1835–36*, p. 53.

A similar idea was contained in the report made by the committee on post office and post roads in 1836,[20] its chief suggestion being long-time mail contracts with the consideration paid in advance. The donation idea pervades the report, for the advantages of railways are set forth at some length, and their necessitous condition is contrasted with the over-flowing treasury of the time. In the debate over the bill that was then introduced, too, it is evident that the proposed system of contracts had aid to railways as one end. Indeed, Mr. Buchanan (Pa.) asked whether the bill did not provide for a system of internal improvement, and objected to taking money out of the public treasury to give to railway companies.[21] Mr. Clay had little doubt that the measure would revive the system of internal improvement.

In 1841 Postmaster General Wickliffe reported that it was a good time to secure the perpetual transportation of the mails free of charge by the advancement of a sum in gross to such companies as were willing to enter into a contract.[22] The railways were laboring under financial embarrassments which the aid of the general government given in this way would effectually remove.

During 1844–45 a bill was up which proposed allowing payments on mail contracts to railways under course of construction;[23] and at its 1847–48 session the House resolved to inquire into the expediency of making twenty-year contracts for mail service, and of granting these contracts on such terms that a certain percentage of the compensation might be employed to complete unfinished portions of roads.[24]

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[19] *Sen. Docs., 1835–36,* IV, No. 276.

[20] Above, p. 322.

[21] *Cong. Globe, 1835–36,* III, 372.

[22] *Ex. Docs., 1841–42,* I, 438. It was suggested that a sum sufficient to yield at 5 per cent. an interest equal to the amount then paid for mail transportation would be the proper amount.

[23] *Cong. Globe, 1844–45* (*Sen.*), p. 157.

Sufficient evidence has now been presented to indicate the existence of a considerable and long continued movement to grant aid to railways in connection with a system of contracting for mail service. Such proposals were generally connected with complaints of unsatisfactory service and high rates, and with provisions for regulating these conditions;[25] but the aid feature forms a distinct thread running from 1835 down through 1850. No case has been found, however, in which aid in this form was granted.

It seems that between 1840 and 1850 Congress rejected the idea of free mail service on the part of railways. It was quite common to suggest free transportation of the mails when aid in any form was proposed for a railway, but such suggestions uniformly failed to be carried out. It was often stipulated that rates on the mail should be reasonable, and the like, but transportation free of charge was definitely abandoned. For instance, when a bill to grant lands to Iowa was up, it was remarked that the provision merely that the mails be carried at a reasonable price which the measure contained was inadequate, and a motion was made to amend it by inserting ''free of any charge.''[26] The amendment was rejected. Similarly, in some cases attempts to amend grants so as to require mail transportation at the same rates as had prevailed on coaches were negatived,[27] and, as has appeared, all the agitation for a system of contracting with the railways was on the basis of liberal payment for their services. In this matter a distinction was drawn between the mails and troops, munitions of war, etc., the latter being often excepted from transportation charge.

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[24] *H. J., 1847–48*, p. 554. The southwestern chain of railways was especially referred to.

[25] The railways were not without their defenders, however. In 1842–43 Mr. Porter (Mich.) said, in debate on a bill to prevent private express mails: "Even if the government did pay these companies a high price for the service they performed, yet something was due to the States and to the individuals who had constructed these roads for the convenience of the public, on account of the greatness of the undertaking, and the vast and unprofitable outlay of money. He was unwilling to make those roads contribute to the payment of the taxes properly payable by other portions of the country, to sustain the Post Office Department." *Cong. Globe, 1842–43*, p. 246.

[26] *Cong. Globe, 1849–50*, p. 1240.

[27] e. g., *Cong. Globe, 1845–46*, p. 751 ff.; Mr. Niles.

CHAPTER XIV

LAND GRANTS: INTRODUCTORY AND EARLY HISTORY

The history of government aid to railways would be as Hamlet with Hamlet left out unless land grants were included in that history. Donations of land acres or proceeds of land sales have been the object of continuous agitation, and so important a part has this matter played, not only in railway history but in general history, that it is fitting to devote careful and detailed study to its development.

The word development is used with purpose. From the early years of the nineteenth century well down to our own time the problem of land grants to transportation agencies has existed, changing with circumstances, it is true, but, nevertheless having continuity. To treat the subject intelligently and exhaustively one must begin, not with grants or proposals for grants to railways, but with such donations to roads and canals—the works of "internal improvement" which, after some struggle, the railway supplanted.

As preliminary to a detailed history of congressional land grants to railways, some analysis of the problem should be made. The subject is a complex one, because it involves two distinct sets of doctrines: the attitude of Congress toward the disposition of the public domain was one factor; that toward government participation in internal improvements was another. While these factors are distinct, yet they react upon one another, and the attitude of a congressman toward internal improvements in general or railways in particular may modify his attitude toward bestowing public land, and vice versa. Furthermore, these two factors, land policies and internal improvement policies, might in their turn be analyzed and their relation to tariff, slavery, and states' rights policies be determined. Leaving this inquiry to a chapter on the philosophy of land grants, but bearing in mind the simple, preliminary analysis, let us at once take up the thread of events.

In the following brief account of early grants to canals and roads some latitude will be taken in presenting matters not immediately connected with land—this for the purpose of having in mind all sides of the situation which confronted the railway in 1830 or thereabouts.

Probably the first grant of land for "internal improvement" ever made by the Congress of the United States was that of 1796. In this year an act was passed, entitled "An act to authorize Ebenezer Zane to locate certain lands in the territory of the United States west of the river Ohio,"[1] according to which Zane received three tracts of land each one mile square. The lands were to be located "in such situations as shall best promote the utility of a road to be opened by him on the most eligible route between Wheeling and Limestone."

In the same year, 1796, Madison submitted a resolution to the House for a road extending north and south through the states.[2]

As the debt incurred during the Revolutionary War neared extinguishment and Louisiana was purchased, Jefferson was instrumental in having a road made from Washington to New Orleans; and, in 1806, under the same administration, the government took up a work of internal improvement in the Cumberland Road.

The period 1806–17 was one of projects for great systems of national internal improvement. In 1808 Gallatin presented his famous report advocating national aid to roads on economic as well as political grounds. Some premonition of the relation of the tariff to internal improvement appears in this report, as Gallatin argued that the expense of constructing roads could be defrayed from import duties, while decreased cost of transportation would more than counterbalance the effect of a tariff in raising prices. The carrying out of Gallatin's scheme was interrupted by the War of 1812—though even in 1814 it was discussed—but during 1816 and 1817 the great growth of nationalism which had taken place meanwhile gave rise to renewed projects. President Madison in his 1816 message urged that the constitution be so amended as to clearly vest in Congress power to "effectuate" a comprehensive system of roads and canals.[3]

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[1] *Laws of the U. S.,* II, 533. Limestone, Ky.

[2] Throughout this brief account of early developments, *Rep. of Com,* 1830–31, (21 Cong., 2 sess.) No. 77 has been of service.

In 1817 a bill was passed by Congress the object of which was to set apart the bonus paid by the Second National Bank together with the annual profits on government stock in it as an internal improvement fund. This "Bonus Bill" was vetoed by Madison on constitutional grounds and failed to get the necessary two-thirds majority. The President's words were, "I am constrained, by the insuperable difficulty I feel in reconciling the bill with the Constitution of the United States."[4] The failure of this bill somewhat checked the movement for a system of government aid to internal improvements.

In 1817, Monroe's first message stated his opinion that Congress could not constitutionally undertake internal improvements, but the committee to which the message was referred reported "in direct contradiction of the opinion of the President" and the House passed a resolution that Congress had power to appropriate for constructing canals, roads, etc. By a very close vote it was decided, however, that Congress did not have power to construct even post and military roads, nor canals for military purposes. Thus "a practical distinction was taken between the right to originate by national authority and the right simply to appropriate in the aid of State construction."[5] Much of the long discussion during 1818–19 centered around the distinction between expediency and constitutionality.

At this time Calhoun reported in favor of a national system of internal improvements along Gallatin's lines on military grounds. Calhoun seems to have considered the constitutional feature of slight consequence.

Between 1818 and 1827 there were many appropriations[6] for the Cumberland Road and other acts giving aid. Taking up those which deal with land, we find that in 1820 a strip eighty feet wide was reserved for continuing the Cumberland Road;[7] and two years later ninety feet of land on each side of its route were granted to Illinois and Indiana for a canal, the sections through which it passed being reserved for future sale by the government.[8] The increase expected in public land values figured in both cases, and the ground for the extension of the Cumberland Road was definitely stated to be, "whereas by the continuation of the Cumberland road from Wheeling * * * the land of the United States may become more valuable."

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[3] *H. J., 1816–17*, p. 14.

[4] *H. J., 1816–17*, p. 535.

[5] Schouler, *U. S. History*, III, 249.

[6] See above in chapter on appropriations.

The first considerable grant of land other than a right of way came in 1823, when an act was passed for laying out a road from the Miami of Lake Erie to the Western Reserve according to provisions of the treaty of Brownstown.[9] In order to enable the state of Ohio to open and construct this road, a strip of land 120 feet wide was given and in addition an amount equal to one mile on each side of and adjoining the road, it being provided that this land should not be sold for less than $1.25 per acre. This grant differs from later ones in that the policy of reserving alternate sections was not adopted.

Finally, in 1827, came the typical donation of alternate sections along the line of the Illinois & Michigan Canal, referred to below.[10] At the same time a similar grant was made to Indiana for the Wabash & Erie canal, and in 1828 Ohio was aided in extending the Miami canal.[11] Early in the next decade the Illinois grant was authorized for a railway, and at the same time railways began to supersede other means of transportation. The history of aid to canals and roads may be dropped at this time, when it merges into that of aid to railways.

In passing it should be observed that at about this very time (1827) such states as Illinois, Indiana, and Missouri were complaining in Congress against the limitations upon their sovereignty because of the public lands within their borders concerning which they had neither the power of eminent domain nor of taxation. Moreover, and more immediately to our point, the internal improvement boom, which succeeded the completion of the Erie Canal, was on, and furnished an incentive for demanding a surrender of public lands. There may be seen in these facts, (1) some indication of the reaction against the centralistic tendencies of the time, and (2) the early beginning of the movement for donations of land to the states for settlers[12] and transportation agencies.

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[7] *Laws of the U. S.*, VI, 536.

[8] *Ibid.*, VII, 22.

[9] *Ibid.*, p. 118.

[10] pp. 334 and 360.

[11] *Laws of the U. S.*, VIII, 118.

Meanwhile the general issue of the relation of the federal government to internal improvements had been actively raised in 1822 with a bill for the repair of the Cumberland Road, which, as stated above,[13] involved much broader questions of government control than lay on its surface. Monroe's veto message provoked further discussion, and in 1824 there were long debates in Congress. As a result the General Survey Bill[14] was passed in 1824, being so constructed as to get all for internal improvements that could be gained.

John Quincy Adams (1824–28) was extremely active and outspoken in favor of a government system of internal improvements, and he believed that one could be maintained from the proceeds of land sales. Adams was not successful in securing the adoption of his policy, however, and with Jackson's election the chance for it became slight. In 1830 Jackson sent in his celebrated veto of the Maysville road bill, and from about this time may be dated the downfall of the early movement for government participation in the construction or control of means of transportation.

The conclusions to be drawn from the foregoing resumé of the early history of internal improvements in Congress are fairly definite and significant. Down to nearly 1830 the policy of government participation had been in much favor, and many appropriations and some land grants had been made. At about the date mentioned this condition was altered, and the early railway companies found Congress less generous than had previously been the case. But this was not all. There was hostility to railways, as such, which acted directly against them and indirectly upon general internal improvements. And furthermore, partly because of their greater facility for private construction and operation, and partly because of industrial and political conditions, railways were generally undertaken by unaided private capital,[15] which development was no doubt aided by the natural conservatism of such states as had invested in canals.

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[12] As early as 1824, Benton introduced a bill for graduating land prices and granting pre-emption rights to settlers. See Lalor, *Cycl. of Pol. Sci.*, III, 471, on this point and on this paragraph in general.

[13] p. 254.

[14] Above, chap. IX.

But here it should be observed that the aid given to canals and roads prior to the railway era had been mostly in the form of appropriations of money, and it was aid in this form that chiefly fell into discredit or came to be prevailingly regarded as unconstitutional. Hence aid in some other form must be sought for, and the great later development came to be along the line of land grants. No record of a money appropriation directly bestowed upon a railway has been found, nor did Congress subscribe to the stock of this transportation agency, whereas vast quantities of land were soon to be granted.

The canal grants of 1827–28 have been cited, and these early donations were no mean ones: it may be added that at this session Congress made donations of land for internal improvement which actually exceeded proceeds of land sales for the same period, donations for all purposes aggregating 2,300,000 acres.[16]

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[15] See above, p. 290.

[16] Lalor, *Cycl. of Pol. Sci.*, III, 472. Some idea of the extent to which water ways and roads profited by land grants down to 1841 may be gained from the following table adapted from one made out by the Commissioner of the General Land Office and to be found in *Rep. of Com., 1847–48*, No. 230, p. 15.

State.	Total acres.	Purpose and method.
Ohio..........	1,180,192	For canals, 1,099,419 acres by alt. sec's.
		" roads 80,773 "
Ind............	1,609,859	" canals 644,537 " by alt. sec's.
		" " 794,742 " " " " (in part.)
		" roads 170,589
Ala.............	400,000	" improving navigation of rivers.
Wisc. Ter......	487,715	" " " Grant river, 640 acres.
	....	" " " Fox and Wisc. riv. 315,875 acres,
		" Milw. & Rock Riv. canal, 171,200 acres.
Iowa...........	250,000	" improving Des Moines river, alt. sec's.

In writing a detailed history of grants of land to railways, it is logical and expedient to analyze the subject and classify the grants as follows:

- I. Land acres:
    - 1. Right-of-way and materials.
    - 2. Pre-emption rights.
    - 3. Donations other than rights-of-way.
- II. Proceeds of land sales:
    - 1. 2 per cent. funds, 5 per cent. funds, etc.

CHAPTER XV

LAND GRANTS: GRANTS OF RIGHT-OF-WAY THROUGH PUBLIC LANDS

Early Grants

After 1806 appropriations for roads and canals became quite numerous, as has appeared in an earlier chapter,[1] and such appropriations were sometimes accompanied by grants of a right-of-way through the public lands. In the West a road of any great extent could not well be built without passing over land held by the federal government, and this necessity put it within the power of Congress to obstruct or to aid such undertakings. The earlier grants of right-of-way were made to canals and roads, but they are not to be put in a class aside from those later made to railways; here, as in the case of other forms of aid, the whole series makes a continuous evolution, and it is well to begin at the beginning.

"An Act to authorize the State of Illinois to open a canal through the public lands, to connect the Illinois river with Lake Michigan,"[2] approved March 30, 1822, is typical of a donation of right-of-way pure and simple, that is, unaccompanied by an appropriation of money. By this act the state was authorized to survey a route, and ninety feet of land on each side of the line chosen were reserved to it. Moreover, material for construction might be taken from adjacent public lands. The act provided that the canal should always be a free public highway to the United States, and sections through which it passed were reserved for future sale by the government, the idea clearly being that their value would be enhanced by the construction of the canal.

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[1] Above, Chap. X.

[2] *Laws of the U. S.*, VII, 22. A similar act was passed at the same time in behalf of the Wabash & Erie canal (Ind.)

GENERAL GRANTS TO RAILWAYS PROPOSED: 1834–37

During the first few years of railway construction the necessity for obtaining right-of-way from Congress did not arise. When railways came to be projected for the South and West, however, this necessity confronted the undertakers, and as early as 1834 bills for granting right-of-way through public lands to railways begin to appear. Among the earliest propositions of this nature was a joint resolution granting right-of-way through public property at Harper's Ferry to the Winchester railroad.[3] This was a particular grant. But earlier in the same session a bill was introduced proposing a general grant of right-of-way to railroads,[4] which proposition may be taken to characterize the earlier attempts to secure these grants for railways. At the next session of Congress there were two bills—one before the House (No. 385) and one before the Senate (No. 147)—which proposed to authorize railways in general to pass through public lands, but both failed of passage.[5] In 1836 the House resolved that its committee on public lands be instructed to inquire into the expediency of authorizing incorporated railroad and canal companies to construct through United States lands,[6] and in the following year a Senate bill, (No. 145), proposed a general right-of-way to canal and railroad companies. Like its predecessors, this bill was not carried.

There were, then, several early propositions to pass a general law providing for right-of-way through public lands, all of which failed.

THE FIRST RIGHT-OF-WAY GRANTED

In 1834 the Tallahassee Railroad Company of Florida presented a memorial in Congress praying permission to construct a railroad on the public lands in Florida and a grant of 100 yards on each side of the track.[7] The company also desired

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[3] *H. J., 1833-34*, p. 576. In this case the occasion arose from the existence of a small piece of public land in the East.

[4] *H. J., 1833-34*, p. 425.

[5] *H. J.* and *S. J.*, *1834-35*, index of bills.

[6] *H. J.*, Mar. 3, 1836.

[7] *Sen. Docs.*, *1834-35*, II. No. 38.

100 acres at the terminus where the St. Mark's and Wacolla rivers joined. This memorial was granted, though the amount of land was greatly reduced, and on March 3, 1835, the act was approved—the first one to grant right-of-way over public lands to a railway.[8] By the act Congress bestowed an amount of land equal to thirty feet on each side of the line, and, for purposes of construction and repair, the company was to "have the privilege" of using timber from the public lands for one hundred yards on either side. Instead of the 100 acres asked for a terminal grant, 10 acres only were given. It was provided that the land and privileges granted should revert to the government unless the road were begun within five years and completed within ten.[9]

That the grant was small both absolutely and relatively to the amount asked for is noteworthy. Also its similarity to the act of 1822, by which a right-of-way was granted to Illinois for a canal, is apparent, the essential difference being the provision for free use by the government in the earlier grant.

Following this grant of a right-of-way to a Florida railway there came a series of propositions for grants to various roads, some of which entirely failed, some passed one House only, while some became laws. As instances of these last, the grants to the New Orleans & Nashville,[10] East Florida,[11] Atlantic & Gulf,[12] and Mobile & Ohio[13] railways may be cited. The grant to the New Orleans & Nashville appears to be the first to contain a provision requiring that a description of the route and surveys be filed at the general land office. These various acts differed somewhat in the privileges extended—amount of land, material, and time limits—but in general they form a series of similar grants made either to particular railways directly or to states for particular railways.

Toward the close of our period memorials and bills for rights-of-way became very frequent, an unusually large number occurring at the 1850–51 session of Congress. This was the time when the railway net was being stretched between the Alleghenies and the Mississippi and growth was extremely rapid in the Middle West. Naturally the demand for right-of-way privileges was correspondingly great, and as a result Congress was driven to the enactment of a general law.[14]

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[8] *U. S. Statutes at Large*, 23 Cong., 2 sess., c. 45.

[9] The foregoing rights and provisions were extended to two other railways, one from Pensacola to the Chatahoochee near Columbus, and another from the St. Johns to the Suwanee.

[10] *H. J., 1835-36*, p. 845, and index. Act passed July 2, 1836.

[11] *Ibid.*, p. 465, and *S. J., 1835-36*, p. 183, and index.

[12] *U. S. Statutes at Large*, 30 Cong., 2 sess., c. 116 (1849).

[13] *Ibid.*, c. 117.

A General Law Providing for Right-of-Way Through Public Lands: 1852

In order to bring this part of the congressional history of railways to a logical close, it will be necessary to overstep the dividing year of the century, for it was not until 1852 that a general law was finally passed. At about that time, however, the matter came up in both houses of Congress. In the Senate a bill was urged on the ground that it would supersede the necessity for legislating upon each of the many applications that individual companies were making.[15] It was stated that the Senate had "been in the habit of granting the right-of-way upon the application of individual companies whenever it has been asked," the inference being that granting rights-of-way had become a matter of course to be facilitated by some labor-saving device. Apparently on these grounds the bill passed the Senate. Meanwhile the House had passed a bill of its own, which had come to the Senate and been referred to the committee on public lands. That committee reported it to the Senate without amendment, and it was passed,[16] thus superseding the Senate bill and becoming law on August 4, 1852.

The act[17] provided for a right-of-way through public lands of 100 feet in width—the Senate bill had provided for 150 feet—to be granted to all rail and plank road or macadamized turnpike companies then chartered or to be chartered within ten years. Such companies were given the right to take materials of earth, stone, or wood from adjacent public lands, where convenient, and sites for watering places, workshops, and depots were granted. No depot or watering place was to contain over one acre and such sites were not to be granted at intervals of less than ten miles. The act was wise in that it did not bind Congress for more than ten years, it being provided that roads must be begun within ten and completed within fifteen years from the time of its passage, in order to take advantage of the general grant.

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[14] At this time, too, the states were finding it necessary to pass general laws for the incorporation of railways, so great did the evils of requiring particular charters become as a result of corruption and lobbying, to say nothing of lack of uniformity in charters.

[15] *Cong. Globe, 1851–52*, XXIV, Pt. II, p. 1460.

[16] *Ibid.*, Pt. III, 1949.

[17] *Ibid.*, p. IX (*Acts passed*).

With the enactment of this general law in 1852 the history of right-of-way grants to railways is closed for a time. It is a good place to stop and answer the question, What is the significance of such grants?

The Significance of Grants of Right-of-Way to Railways

In writing the history of land grants to railways, it has been customary to begin with 1850 and to neglect or entirely omit discussion of the rights-of-way through public land which were granted in earlier years. It has been stated that these grants of right-of-way were "in no sense land grants."[18] What has gone before, however, surely gives some indication of the fallacy of this general attitude, and it will take but a few words to make it clear that while the first large grant of land made directly for railway purposes occurred in 1850,[19] it was preceded by a series of land grants of no inconsiderable amount or importance.

In the first place, the relativity of things should be borne in mind. In the earlier stages of railway construction the grants of right-of-way and accompanying privileges were of relatively greater value than later. Moreover, as railway construction was pushed westward the lands involved had less value and at the same time the difficulties which confronted the railway were greater.

And again, these early grants of right-of-way served as entering wedges for later grants of vast quantities of land. Rights-of-way came to be connected with other rights—rights to materials, depot lands, finally, pre-emption rights—till the way for grants of greater amounts of land was prepared. While the land grants of 1850 do mark the beginning of a period of large donations, it would be wrong to think of them as thunder from a clear sky.

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[18] Sanborn, *Cong. Grants of Land in Aid of Railways*, p. 19.

[19] But in 1833 the grants of certain alternate sections to canals in Illinois and Indiana were authorized for railways. See below, p. 360.

Some of the very earliest rights-of-way included valuable privileges in the shape of materials and additional land. The grants of March 3, 1835,[20] gave the right to take materials of stone, earth, and wood from adjacent lands and included ten acres of land at the terminus of the railway. The grant to the Florida Peninsula Railroad & Steamboat Company a few years later (1838), in addition to an eighty foot right-of-way, bestowed materials within twenty rods of the road and sites for watering places, depots, and workshops.[21] The Atlantic & Gulf Railroad Company in 1849 received over and above its 150 feet of right-of-way the privilege of taking materials and lands for its depots, etc., not to exceed five acres for each ten miles of line. No further citation is necessary to prove the importance of these grants of right-of-way by reason of privileges included—both of land and products of land.[22]

Moreover, if further evidence is necessary, the fact that these grants were debated over and favored or opposed on grounds quite identical with those that are to figure in the case of the great donations other than right-of-way is significant in this connection. We find congressmen urging the enhanced value of public lands as an argument in favor of giving right-of-way, while others are opposing on the ground that in return for such grants the government was receiving nothing and losing a chance to make advantageous mail contracts.[23] "If the United States gave this company lands by which the road was to be made, it might be right to ask something from the company in consideration of the same,'' for the gift was no mean one. The efforts made to obtain rights-of-way—with accompanying privileges—and the resistance to granting them are evidence of their value.

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[20] Above, p. 336 and note.

[21] *Acts of Cong., 1837–38,* c. 150, §§ 3, 4.

[22] It might be possible to treat material, timber, etc., as a distinct kind of grant. This would be suggested by a Senate resolution (*S. J., 1834–35,* p. 110) that the committee on roads and canals inquire into the expediency of authorizing several railway companies to use timber from public lands, and to have right-of-way thereon. The two are generally associated, however, and logic does not demand separate treatment.

[23] *Cong. Globe, 1836–37,* p. 115. Debate on bill to grant Atchafalaya Railroad & Banking Company a right-of-way through public lands.

The attitude of one section of the country toward the public lands appears in the debate over a bill ''to grant the right-of-way through the public lands for the construction of a line of railroad through the states of Ohio, Indiana and Illinois.''[24] At that time Mr. Sweetser (O.) stated his conviction that to grant the right-of-way was a work of supererogation on the part of Congress. The right of eminent domain lay with the states, and the states had the right to make such grants without congressional action. The government only held the public lands in trust for the several states and for the federal congress to grant a right-of-way through them was a ''fraud upon the credulity of the House,'' as it was based on the ''pretense'' that in this matter Congress had sovereign power. This idea will come up again in connection with donations of land other than right-of-way. Here it is sufficient to observe its bearing on the significance of right-of-way grants. It was largely inspired by hostility to relations between corporations and Congress and expresses the tendency of believers in states' rights doctrines.

A study of the provisions of the successive grants of right-of-way reveals some tendency toward increasing generosity on the part of Congress. To take the cases cited above: the Tallahassee railway received a strip sixty feet wide in 1835; the following year the New Orleans & Nashville eighty feet; eighty feet was the width granted to the Florida peninsula company in 1838; 150 feet to the Atlantic & Gulf in 1849; 100 feet by the general law of 1852; while the land grant of 1850 gave the Illinois Central 200 feet for right-of-way. At the same time a slight tendency to enlarge allowances for depots, etc., appears. This latter tendency was not so marked, however, and by no means warrants the implication in the statement that ''such grants at first carried no extra donation of lands.''[25] This increase in amount granted may be attributed partly to a recognition of the growing necessities of railways and partly to a tendency toward the greater land grants of the fifties.

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[24] *Cong. Globe, 1850-51,* XXIII, 127.

[25] Sanborn, *Railroad Land Grants,* p. 19.

Early in the history of right-of-way grants, memorials and bills began to seek for pre-emption rights to adjacent lands, coupling such proposals with right-of-way measures.[26] The significance of the agitation by railways for pre-emption rights will be treated in the next chapter.

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[26] See *Cong. Globe, 1836-37*, p. 67; *Rep. of Com. 1838*, II, No. 385.

CHAPTER XVI

LAND GRANTS: PRE-EMPTION RIGHTS

The history of government aid to railways in so far as that aid took the form of grants of pre-emption rights is mostly comprised within one decade. The ten years lying between 1835 and 1846 form a period during which memorials and resolutions in Congress propose pre-emption rights, or sales of land on credit, with considerable frequency—we say propose, for it seems that no such grants were actually made. Such propositions quite generally accompanied right-of-way measures. Obviously either kind of grant could only apply over unsettled public lands, and it was not until the railway net had been somewhat extended that efforts were made to obtain them; then a fringe at the west and south became the region of agitation.

Propositions for granting pre-emption rights were most numerous in the earlier years of this decade. To give some idea of the extent of the interests concerned, the companies which sought to obtain the right to enter public lands on credit at the 1835–36 session of Congress may be named:[1] These were the Atchafalaya Railroad & Banking Company (La.), the Missouri & Mississippi Railroad Company, the Mad River & Lake Erie Railroad Company, the Illinois Central Railroad Company, and a railway from the Tennessee valley to Mobile Bay for which the legislature of Alabama memorialized Congress.[2] Bills for all these lines, with the exception of the Mad River & Lake Erie, were introduced and were favorably reported upon by the committee on public lands, to which they were referred, but in each case the measure failed to pass. In the case of the Tennessee-Mobile road, however, the committee went further than asked by the Alabama legislature and proposed a donation of alternate sections, so the bill did not fail on the merits of pre-emption. At no other session were there so many bills of this kind before Congress.*

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[1] See *H. J.* and *S. J.*, *1835–36*, index under "public lands" and "railroads".

[2] *Exec. Doc.*, *1835–36*, IV, No. 150; *Rep. of Com.*, *1835–36*, IV, No. 607.

The movement for granting pre-emption rights to railways,—if, indeed, it can be called a movement—was largely spent when the downfall of state activity in internal improvement came, and after 1840 it played a relatively insignificant part. It belongs to the period of railway activity which immediately preceded the crisis of 1837—a period during which government aid would have inured to states rather than corporations.

As giving some indication of the attitude toward the policy of allowing railways to enter public lands on credit which prevailed with a part of Congress at the close of this period, a report of the Senate committee on roads and canals concerning

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* NOTE.—In 1840 a bill to grant the Mt. Carmel & New Albany railroad a pre-emption right failed by a small majority in the Senate. The vote by sections was as follows (*S. J.*, *1839–40*, p. 463) :

	For.	Against.		For.	Against.
Maine	1	1	Ohio		2
New Hampshire		2	Indiana	2	
Vermont	*	*	Illinois	2	
Massachusetts	1	*	Michigan	1	*
Rhode Island	2				
Connecticut	1	*			
New England	5	3	"Northwest"	5	2
New York	1	1	Kentucky	*	*
Pennsylvania		2	Tennessee		2
Delaware	1	*	Alabama	1	*
New Jersey	*	1	Mississippi	1	*
Maryland	*	*	Louisiana	1	*
Middle Atlantic	2	4	South Cen.	3	2
Virginia	*	1	Missouri	1	1
North Carolina		2			
South Carolina		2		1	1
Georgia	*	1			
South Atlantic		6	Total	16	18

* Not voting.

The stronghold of the grant lay in New England and the Northwest, while the South Atlantic states were solid against it. The Middle Atlantic section was probably more evenly divided than the vote would indicate, a Maryland senator having favored pre-emption at an earlier test (see *Ibid.*, pp. 331, 442). Also a Kentucky senator seems to have favored the grant, thus increasing the majority in the South Central states.

a bill for the benefit of the Selma & Tennessee Railroad Company is of interest. The committee deemed it expedient where public lands would be enhanced in value by the location of a railway (or canal) ''to grant to the companies by whose exertions and means those objects are effected a participation in the advantages resulting from them. Indeed, it appears just that the government should share with them the increased receipts from the lands growing out of their acts. To effect this object, *there appears no course better calculated, than to give the company a pre-emption right to a portion of the lands whose value will be increased* * * *.''[3] This amounted to the formulation of a general principle, and was in the spirit of a general law granting pre-emption rights to all railways. Nothing came of it, however, and no pre-emption was given the Selma-Tennessee Company, the particular railway concerned.

Passing over an earlier proposal for a general pre-emption law,[4] we find, toward the end of the half-century, a general pre-emption bill running almost half the course that a bill must run in order to become an act of Congress. In 1849 this bill, entitled ''An Act to grant the right-of-way across the public lands, and to dispose of said land in aid of the several States in the construction of railroads and canals,'' was passed by the Senate,[5] and was sent to the House where it was twice read. The second section of this measure, which ''embraced the grand idea of the bill,''[6] provided that upon a report by the proper authorities that the railway route had been surveyed there should be reserved from sale as much of the public land along the line of the road as might be selected, so that it lay within ten miles thereof. This land was to be given to the state or states concerned, at a price not to exceed $1.25 per acre. The period of pre-emption or credit was ten years, at the end of which time, if payment was not made, the lands were to revert to the government.

The measure met with severe criticism in the House. It was argued that under the bill the "new states"—in behalf of which the grant was avowedly proposed—would pre-empt large tracts of land, and then, being debtors to the federal government, would combine against it in Congress to rid themselves of their debt. Moreover, the prevalence of speculation in such states was referred to, the prediction being made that they would lay out numerous railways for purely speculative ends till all the lands were in their power. "Land would thus be taken immediately out of the market to aid in the construction of roads not needed, and which would never be completed."

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[3] *Sen. Docs., 1837–38*, V., No. 408. Italics are the writer's.

[4] *Cong. Globe, 1847–48*, XVIII, 60. Mr. Wentworth gave notice of motion for leave to introduce a bill to grant right-of-way and of pre-emption to all railroads which might be constructed over public lands. No action resulted.

[5] *Cong. Globe, 1848–48*, XX, 521.

[6] *Ibid.*, p. 532.

No convincing reply was made to these objections. The statement that to lay out railways which were not to be completed was unbusinesslike—that no state legislature or company of individuals would expend money in surveying roads which they might know they could not make—did not appeal to the House. Certainly a congressman today would smile at so naive an assertion—an assertion which overlooks the spirit of the little maxim, "business is business."

Before the bill could be finally acted upon, it was returned to the Senate[7] at that body's request, and as it made its exit one representative expressed his desire "to give it a black eye before it goes."

This debate brings clearly to light the conflicting interests of the new and the old states—of the West and the East. One of the speakers referred to Ohio's change in attitude toward the disposition of public lands, a change which had taken place since the practical disappearance of such lands within her boundaries. By 1850 the center of population lay west of the Alleghenies, and the admission of Texas, Michigan, Wisconsin, and Iowa, together with the recent acquisition of Oregon and the Mexican Cession, gave cause for jealousy in the East. At this same session the territory of Minnesota was organized, and Utah and New Mexico followed during the next (1850), at which time, too, California was admitted as a state. The attitude of those states which had no public lands within their borders toward the granting of lands to aid enterprises in those which had, is an important factor in the phase of the congressional history of government aid to railways now under discussion.[8]

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[7] *Ibid.*, p. 542.

THE SIGNIFICANCE OF THE HISTORY OF PRE-EMPTION RIGHTS

While, prior to 1850, no actual grant of pre-emption rights to a railway has been found, yet the history of efforts to obtain such grants is not without its importance. In the first place, pre-emption grants are in a sense land grants. Between donating lands scot-free and selling them at market value there are many steps—a grant of land which is accompanied by stipulations regarding mail service is less valuable to a railway than one without such provisions, and land for which a nominal or a small price must be paid is not ''worth so much'' as land which is donated. Clearly what is given is the value of the land and the railway company profits by the grant accordingly as the total value exceeds the expenses attached by a great or a small amount, i. e., it is interested in the net value. Now a pre-emption right running for some time may net the recipient great value, which value is as truly a land grant as though no expense had been undergone. The persistent efforts made by railway companies to obtain them, and the opposition of Congress, clearly prove the value that was attached to these grants. No history of the evolution of the land grant policy in relation to railways could be adequate without a treatment of this phase of it.

The debates over proposed grants of pre-emption rights to railways served to break the way and define the issues for similar debates over absolute donations which follow—debates which terminated in actual grants. The arguments in both cases are practically the same. In 1836 the House committee on public lands reported in favor of granting a pre-emption to the Missouri & Mississippi Railroad Company, on the ground that it would enhance the value of public lands and develop new resources of trade and population.[9] Shortly afterward the Senate committee on roads and canals advocated allowing the Alabama, Florida & Georgia Railroad Company to enter

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[8] See below, p. 382 ff.

[9] *Rep. of Com.. 1835-36*, II, No. 382.

500,000 acres of public land on six years' credit, their reason being that the road would open up and make saleable lands that could not then be disposed of, values would be raised, and troops and military stores would receive free transportation.[10] The reasons are identical with those used in favoring absolute donations, and in the case of the Illinois Central similar arguments were advanced in favor both of a pre-emption right and of the donation which later was granted.

The argument for a pre-emption was stronger, however, in that it came more nearly to giving the railway what it added to land values by its existence. In theory it was to pay the government price and would profit by the grant to the extent that the adjacent lands were enhanced in value,[11] by increasing their accessibility. Where such increase in accessibility is solely due to railway construction, it is as true today as it was then that accordingly as railway projectors run risks and exercise foresight they should be recompensed and rewarded. The difficulty lies in estimating the limitations suggested in this statement.

Pre-emption occupied a sort of middle ground between right-of-way and donations of land other than right-of-way. Within the two years 1838–39 we find a pre-emption bill being changed to one for a right-of-way in order to obtain passage, and a donation bill being changed to one for pre-emption with the same end in view. It was something more than a right-of-way and something less than an absolute donation.

The whole story of pre-emption rights as a factor in aid to railways may be summed up thus: during the period when pre-emptions were most proposed (1835–46) no donation of lands other than those necessary for right-of-way, etc. could well have passed Congress—largely because of the prevailing political doctrine concerning public lands; and when, about 1850, the increasing influence of the West made land grants other than right-of-way possible, the whole loaf, rather than something less—say three-quarters—was taken, and absolute donations were made.

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[10] *Sen. Docs., 1837–38*, IV, No. 294.

[11] See above p. 344, and *Sen. Docs., 1843–44*, II, No. 12.

CHAPTER XVII

LAND GRANTS: GRANTS OF CERTAIN PERCENTAGES OF PROCEEDS OF LAND SALES

Grants of the proceeds of land sales were practically and ultimately grants of land,[1] but, inasmuch as such grants were drawn from special funds established by agreement with new states upon their admission, they were formally so distinct as to warrant a separate treatment. These grants were drawn from funds already in existence; they involved no transfers of land ownership to railway companies; furthermore, the funds from which they were drawn had been established for the express purpose of internal improvements. Thus fewer obstacles were presented to the passage through Congress of aid in this form than existed in the case of a grant of land acres, and among the earliest grants for internal improvements in general and later for railways in particular were those of certain percentages of the net proceeds of the sales of public lands.

Early Grants for Roads and Canals: 1802–1820

The parent grant of this description was that made to Ohio in 1802. The act authorizing the admission of Ohio, passed on April 30 of that year, provided that the twentieth part—or 5 per cent. of the net proceeds of the sale of public lands lying in the state should be applied to making roads from the coast to the Ohio river.[2] By an act of March 3, 1803, however, 3 per cent. of these proceeds were granted for making roads

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[1] In the *Rep. of Com., 1848-49*, No. 244, Mr. Breese made the statement that there was no difference in principle between a donation of land acres and the compacts with new states concerning the 5 per cent. funds. He was arguing for a donation for the Illinois Central.

[2] *Laws of the U. S.*, II, 175.

within the state,[3] thus leaving 2 per cent. for connecting Ohio with the East. It was from this "2 per cent. fund" that the expense of constructing the Cumberland Road was to be defrayed, that work being authorized in 1806.

Between 1803 and 1820 six acts providing for similar funds were passed, the states concerned being Louisiana, Indiana, Mississippi, Illinois, Alabama and Missouri.[4]

No Grants: 1820–1836; Some Proposals; States Seek Possession of 2 Per Cent. Funds

In 1822 the application of the 2 per cent. fund arising from the sale of land in the states of Indiana, Illinois, and Missouri to a road from Wheeling to the seat of government in Missouri was discussed;[5] but from that time to 1832 this form of aid seems to have occupied Congress but little.

In 1832 the House resolved that its committtee on internal improvements inquire into the expediency of appropriating 25 per cent. of the proceeds of the sales of public lands in Illinois for constructing a canal or railway from Lake Michigan to the Illinois river, "in lieu of the appropriation of land heretofore made for that purpose."[6] The grant was to apply annually until the work was completed. No further action was taken upon this exceedingly generous proposition.

In this same year, however, came a resolution which has more

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[3] *Ibid.*, p. 226.

[4] This statement of laws may be found in the *Rep. of Com. 1848–49*, No. 244, p. 18.

Date.	Provisions.	Reference.
1811, February 20..	5 per cent of proc. land sales in La., to be applied making roads and levees in State	Laws, II, 643.
1816, April 19......	5 per cent of proc. land sales in Ind., to be applied making roads and canals................	Laws, III, 290.
1817, March 1.	5 per cent of proc. land sales in Miss., to be applied making roads and canals............. ...	Laws, III, 349.
1818, April 18......	Two-fifths of 5 per cent of proc. land sales in Ill., to be applied making roads.....................	Laws, III, 430.
1819, March 2......	5 per cent of proc. land sales in Ala., to be applied making internal improvements..	Laws, III, 491.
1820, March 6......	5 per cent of proc. land sales in Mo., to be applied making roads and canals..	Laws, III, 547.

[5] *H. J., 1822–23*, p. 57.

[6] *H. J., 1831–32*, p. 262. The act appropriating land (1827) mentioned a canal only. It was authorized for a railway in 1833. See below, p. 360.

significance. It concerned granting to Mississippi the two-fifths of the 5 per cent. fund which had been reserved for the purpose of making roads leading to the state. It was resolved to inquire into the expediency of turning this 2 per cent. fund over to Mississippi to be expended *within* the limits of the state *under the direction of the legislature thereof,*[7] and although the resolution brought no immediate result, it is of some importance as evidence of a tendency on the part of certain states to demand control of their 2 per cent. funds. This would mean that the fund would be applied to improvements within the state rather than those leading to the state.

As further evidence of this tendency a memorial of the legislature of Alabama may be mentioned. This memorial, which was presented in the Senate February 2, 1835, prayed that the 2 per cent. fund arising from sales of public land in Alabama and set apart for constructing roads to that state might "be placed at the disposition of that state to make a railroad from the Tennessee valley to Mobile bay."[8] It was ordered that the memorial be laid on the table. A bill for this grant was introduced in the House, but failed.[9]

During the following year a bill to advance to Alabama and Mississippi each $1,000,000 on the 2 per cent. funds of these states was brought before the Senate, where it was ordered to the table by a vote of 27 to 16.[10]

FIVE PER CENT. OF CERTAIN FUNDS GRANTED TO MISSISSIPPI AND ALABAMA: 1836

In spite of the failure of the measures just recorded, some concession was made to the movement they represented in 1836. On July 4th of that year an act was passed by Congress which granted to the states of Mississippi and Alabama 5 per cent. of the net proceeds of the sales of certain lands within those states.[11] The lands concerned were those ceded by the Chickasaw Indians in 1832, and the sum granted was to be applied to the same purposes specified in an act prior to the admission of the states, namely, internal improvements. While not specifically mentioned, the projected railways from Brandon to Montgomery and from Mobile to the Tennessee were doubtless among the works considered.

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[7] *H. J., 1832-33,* p. 59. Writer's italics.
[8] *S. J., 1834-35,* p. 128.
[9] *H. J., 1834-35,* p. 306.
[10] *S. J., 1836-37,* pp. 30, 293. Vote came in 1837.
[11] *Statutes at Large,* V, 116 (c. 355).

DEBATE OVER GIVING 2 PER CENT. FUND TO MISSISSIPPI; BILL FOR ALABAMA PASSED SENATE: 1838

From 1836 to 1841 the subject of the 2 per cent. funds did not occupy Congress much, but in 1838 a debate took place on a Senate bill (No. 198) to authorize Mississippi to invest the entire amount of her 2 per cent. fund which had accrued since 1817 "in such railroads in the state as they (the state legislature) may think proper."[12] As but few discussions on this subject are recorded, it will be well to give some account of this debate.

It should be stated here that this bill embraced a provision that the fund might be temporarily invested in lands, subject to private sale or entry at fifty cents an acre.[13]

Mr. Trotter urged the adoption of the plan, because, (1) it is the right of the state; (2) the broad principle of justice demands it; and (3) it will merely equalize the lands granted to Mississippi with those given to the new states. The same speaker stated that the original reason for creating a 2 per cent. fund—that of making a road to the state—had long ceased to exist, and that the "contract" made with Congress to that end should also cease. He held that the principle involved in the bill had been frequently acquiesced in and was fully established, referring to the passage of similar measures in favor of Arkansas, Michigan, and Louisiana.

Mr. Clay (Ala.), after addressing the Senate in favor of the preceding views, offered an amendment under assurance from those who opposed the details of the bill that if an express grant of land was asked for, equal to that made to other states, it would be granted. Such a bill was reported by the committee on internal improvements,[14] but was not passed.

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[12] *Cong. Globe, 1837-38*, p. 493.

[13] See below, p. 352.

In December of this year a bill (No. 60) for relinquishing the 2 per cent. fund arising from sales of public land in Alabama was buried in the House; and the same event occurred in 1840.[16]

Two Per Cent. Funds Granted to Mississippi and Alabama: 1841

Finally "an act to appropriate the proceeds of the sales of the public lands, and to grant pre-emption rights," passed September 4, 1841, gave to Mississippi and Alabama these long sought funds, providing that 2 per cent. of the net proceeds of lands sold after December 1, 1817, be relinquished to the states for internal improvements.[17] Mississippi was to faithfully apply her grant upon a railway from Brandon eastward to the state line in the direction of Montgomery, Alabama.

The next year a resolution was agreed to by the Senate looking toward permitting Mississippi to appropriate $25,000 of the 2 per cent. fund thus granted for completing "the mail road[18] leading from Jackson to Brandon," and in 1843 this modification of the original grant was enacted.[19]

At this time, too, the Governor of Mississippi was authorized to enter any public lands in the state that were subject to private entry, using the 2 per cent. fund for that purpose, and to hold such land on behalf of the state for the trusts and purposes of the fund.[20]

Five Per Cent. to Iowa on Admission; Resolutions of Arkansas and Missouri: 1845–49

After the grant to Mississippi and Alabama in 1841 no further grant was made till Iowa was admitted, when, by act of

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[14] See *S. J., 1837–38*, p. 543.

[15] *S. J., 1838–39*, p. 81. No debate reported.

[16] *S. J., 1839–40*, p. 239. No debate reported.

[17] *U. S. Statutes at Large*, V, 453; *Acts of Cong., 1841*, c. 163, ss. 16 and 17.

[18] *Railroad* in index.

[19] *Laws of U. S., 1842–43*, c. 530.

[20] *Ibid.* See above, p. 351.

March 3, 1845, 5 per cent. of the net proceeds of her land sales were given to that state, to be applied for the usual purposes.

In 1848 a bill was introduced to grant Missouri her 2 per cent. fund,[21] and in 1849 a resolution by the legislature of Arkansas was presented bearing on a similar matter. Arkansas asked that one-tenth of all public lands might be granted to the states in which they lay for education and internal improvement, and that the 5 per cent. fund accruing to herself might be paid in land.[22] This resolution brings out clearly the close relation existing between grants of percentages of proceeds of land sales and grants of land, and indicates furthermore, how closely associated they were in the minds of the people. With this petition that a 5 per cent. fund be transformed to a donation of lands it is natural to turn to that part of the congressional history of railways which deals with direct land grants, that is, grants of land acres.

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[21] *H. J., 1847–48*, p. 322. It was not passed.

[22] *S. J., 1848–49*, p. 180. No further action reported.

CHAPTER XVIII

LAND GRANTS: DONATIONS OF LAND OTHER THAN RIGHTS-OF-WAY

THE MT. CARMEL AND NEW ALBANY

Perhaps the most natural and helpful way to approach this complex subject will be to take up at once a particular case. The history of the efforts made by those interested in the Mt. Carmel and New Albany Railroad[1] Company to obtain from Congress a donation of public lands extends over a decade of time, and will serve as an index to the status of the railway land grant issue in our national legislature throughout that period.

1837: MEMORIAL. 1838: RIGHT-OF-WAY BILLS FAIL

This railway first appears in the records of Congress during 1837, at which time a memorial was presented by it asking a grant of land on certain conditions.[2] The memorial was referred to the committee on public lands, but was soon transferred to that on roads and canals (1838), and a bill to grant the right-of-way through public lands was reported. After reaching a second reading the bill was laid on the table and not taken up again. At about the same time a similar bill met a like fate in the House.[3]

1838: DONATION BILL PASSES SENATE; FAILS IN HOUSE

On January 12, 1838, before the bill for a right-of-way had failed, the Senate resolved that its committee on post offices and post roads be instructed to inquire into the expediency of granting the railway all public land situated within five miles thereof—providing it agreed to carry the mail free of charge for a term of twenty years.[4] This committee was discharged before it could report, however, and the committee on roads and canals, which had reported the bill for right-of-way but ten days before was given control.[5] Accordingly, in February, a report was presented that was highly favorable to the railway. On the ground that the road was of vital interest to at least three states, that it would open up unavailable lands and enhance their value, that it would foster commerce and public intercourse, and serve postal and military ends, the grant was advocated. ''But above all,'' the committee concluded, ''is the importance which this object possesses, in common with other works of a similar nature and magnitude, in a political point of view, as forming one of the great arteries of the body politic; giving strength to its arm, knowledge to its head, union to its parts, and perpetuity to its existence.''[6] The report was accompanied by a bill (Sen. No. 234) ''for the benefit of the Mt. Carmel and New Albany Railroad Company.''[7] A debate ensued in which the fact that the lands had been on the market a long time and the mail concession were urged, while some objection was made that this was a bargain with a corporation.[8] At this stage it was proposed to amend the bill so as to give a pre-emption right for six years, but the amendment was withdrawn. The bill, amended so as to grant ''to the state of Indiana each alternate section * * * of the unappropriated public land which lies on both sides of the New Albany and Mt. Carmel Railroad,''[9] was finally reported, correctly engrossed, read a third time, and passed on July 4, 1838.[10] On the same day it was received by the House, and two days later that body showed its belief concerning the matter by ordering that the said bill be committed to the committee of the whole

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[1] This railway, which was finally constructed, extends from New Albany, Ind., a little below Louisville on the Ohio, to Mt. Carmel, Ill., a distance of about 120 miles. It thus lies almost entirely within the state of Indiana. By its means the low water often prevailing in the lower Ohio might be evaded.

[2] *S. J., 1837–38*, pp. 28, 97, 109, 382.

[3] *H. J., 1837–38*, p. 242.

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[4] *S. J., 1837-38*, p. 135.

[5] *Ibid.*, p. 148.

[6] *Sen. Docs., 1837-38*, III, No. 203.

[7] *S. J., 1837-38*, p. 232.

[8] *Cong. Globe, 1837-38*, p. 434.

[9] *Ibid.* (*Sen.*), p. 450.

[10] *S. J., 1837-88*, p. 526.

House on the state of the Union, from which limbo it never emerged.[11]

1839: Donation Bill Amended to Pre-emption Passes Senate; Fails in House

The preceding events took place at the second session of the twenty-fifth Congress. At the third session the effort to secure a land grant was continued. After petitions from the citizens of New Albany[12] and of New Orleans[13] in behalf of the railway, a bill (Sen. No. 176) was introduced on January 7, 1839, granting one-half of the vacant and unsold lands six miles on each side of the road to the state of Indiana.[14] A favorable report from the committee on roads and canals accompanied it, which, in addition to the general line of argument of the previous report, laid emphasis upon the vast losses and delays to merchants and farmers occasioned by ice and low water in the Ohio river. This resulted in violent fluctuations in the New Orleans market and thousands of immigrants were delayed and put to expense. The great importance of the railway lay in the fact that it would form a ''missing link'' in the transportation chain from Louisville to St. Louis. The bill and report were followed not long after by a set of resolutions from the Indiana legislature to the effect that the senators and representatives of that state use their influence to secure a law ''providing for the donation *or pre-emption* of lands for the Mt. Carmel and New Albany;''[15] and, indeed, the bill was amended so as to read ''an act to grant the right of pre-emption to a quantity of land,'' and so amended it passed the Senate, February 23, 1839.[16] During the course of this bill in the Senate several memorials were presented in the House, but to no avail; the bill upon reaching the House was read a first and second time, and then suffered the same fate that had befallen its predecessor, the donation bill of 1838. It was dropped.[17]

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[11] *H. J., 1837-38*, pp. 1241, 1256.

[12] *S. J., 1838-39*, p. 48.

[13] *Ibid.*, p. 97.

[14] *Ibid.*, p. 100.

[15] *Sen. Docs. 1838-39*, III, No. 166.

[16] *S. J., 1838-39*, pp. 269-70.

[17] *H. J., 1838-39*, pp. 636, 647, 725.

1840: Pre-emption Bill Fails in Senate; Donation Fails in House

During 1840 another effort was made to obtain a pre-emption. This time the bill even failed to pass the Senate, being indefinitely postponed on June 29 by a vote of 18 to 16.[18] Meanwhile a bill (No. 449) to grant a quantity of land to the state of Indiana for aiding the railway had been introduced in the House, accompanied by a favorable report of the committee on public lands. The report referred to numerous memorials and petitions and stated: ''It is contrary to the dictates of sound policy longer to retain the whole of these lands in their present valueless condition, when, by a judicious appropriation of one-half immediate value will be imparted to the other.''[19] As usual, the House refused to pass the bill.[20]

1840–41: Pre-emption Bill Fails

At the next session of the same Congress, the twenty-sixth, in December, 1840, the railway company presented a memorial in the Senate[21] and a pre-emption bill was introduced, but it failed.[22] Nothing on the subject occurred in the House.

1840–1848: No Agitation

Nothing concerning a donation of land to the Mt. Carmel and New Albany Railroad is to be found in congressional proceedings between 1840 and 1848.[23] There were thus about eight years during which this much agitated grant was not urged upon Congress.

1848: Donation Bill Fails in House

It is of considerable significance, then, to find this long slumbering issue raised again in 1848, when a bill was introduced in the House which proposed to grant to the state of Indiana both right-of-way and a donation of public lands for making a railway from New Albany to Mt. Carmel.[24] Its long rest does not appear to have changed the temper of the House, however, for after a first and second reading the bill was referred to the committee on public lands, and no further action taken.

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[18] *S. J., 1839–40*, p. 463; see above, p. 343.

[19] *Rep. of Com., 1839–40*, IV, No. 590.

[20] *H. J., 1839–40*, p. 1128.

[21] *S. J., 1840–41*, p. 25.

[22] *Ibid.*, p. 34.

[23] Feb. 1, 1841, a memorial of citizens of St. Louis presented.

The following year a resolution of the legislature of Illinois was presented in the Senate which instructed her senators and representatives to endeavor to secure "a liberal donation of the public lands contiguous to the routes of the Mt. Carmel & Alton, and Mt. Carmel & New Albany Railroads * * * ."[25] This is the last appearance of the road during the period under consideration.

Conclusions From the History of the Mt. Carmel & New Albany

Certain definite periods are at once apparent in the course of the efforts to obtain a grant of land for this railway. In the first place, the time when the donation was first proposed is of consequence, and it should be observed that the petition was presented in 1837, and the first bills—those for right-of-way and donation—were introduced during 1838. This serves to indicate what is undoubtedly true, that the speculation attending the crisis of 1837, was a factor in the case. In the second place, the agitation is concentrated in the years 1838, 1839, and 1840, at the end of which years it ceases, and of this fact also it may be said that it probably indicates a relation between the movement and conditions surrounding the crisis and the depression which followed. One of these conditions was the bursting of the state internal improvement bubble which was inflated about 1836 or 1837 only to be shattered in the next two or three years. In the third place, the break between 1840 and 1848 has its meaning; and lastly, the reappearance of the matter in the 1847–48 session is worthy of note.

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[24] *H. J., 1847-48*, p. 960.

[25] *Sen. Misc., 1848-49*, I, No. 36. Other railways were mentioned.

Bearing these points in mind, let us consider the more general movement of affairs.

Early Proposals for Donations to Railways

Perhaps the first mention in the proceedings of Congress of the subject now under consideration is to be found in a communication to the Senate made February 8, 1830. The occasion was the application of Ohio to apply the proceeds of lands granted for the construction of canals to the construction of railroads, and upon this application the committee on public lands made a favorable report. The committee referred to recent improvements in railway construction, and concluded by deeming it "advisable to authorize the Legislature either to continue the Miami canal, or to apply the proceeds of the canal in the construction of a railroad * * * ."[26]

At about this same time occurred one of the earliest proposals for a donation of land to a railway company. On March 29, 1830, the House resolved that its committee on internal improvements inquire into the expediency of either authorizing a subscription on the part of the United States to the Ohio Canal and Steubenville Railway companies, "or of making a donation of public land to the said company, to aid it in the undertaking and completion of the useful and laudable purpose of its incorporation."[27] Though nothing came of this resolution, it is interesting that so early in the history of railway construction Congress should have been applied to for aid by this section of the country, and have considered the expediency of a donation of public lands to a railway company.

At the next session, the House resolved to inquire into the expediency of allowing Indiana to substitute a railway for a canal and for that purpose to transfer the proceeds of lands granted by Congress.[28]

The subject came up in both House and Senate during the following session: a memorial being presented in which the

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[26] *Amer. State Papers,* V, *Pub. Lands,* VI, 138. The proceeds of lands granted for canals are meant. An act of 1833 granted an extension of time for beginning the canal, but does not refer to a railway. (Below, p. 360, note.)

[27] *H. J., 1829–30,* p. 475.

[28] *H. J., 1830–31,* p. 147.

Madison, Indianapolis & La Fayette Railroad Company prayed for a grant of a portion of the public lands;[29] and a bill was reported the object of which was to appropriate certain lands in Alabama for the purpose of improving the navigation of the Tennessee and Coosa rivers, and connecting their waters by canal or railroad.[30]

But, without more detail, it may be said that from 1830 on, no session of Congress—unless it be that of 1841–42—passed without some mention of donations of land to railways.

THE FIRST DONATION OF LAND AUTHORIZED FOR A RAILWAY

In 1833 Congress first authorized the use of a donation of public land for railway purposes. The act of March 2, 1833, did not make a new and original grant, but it authorized the use of land for a railway which had previously been given to a canal. In 1827 alternate sections along the line of the proposed Illinois & Michigan canal had been conferred upon the state of Illinois to aid in carrying on that work, and hence this act of 1833 was entitled, ''An act to amend an act entitled 'An act to grant a quantity of land to the State of Illinois, for the purpose of aiding in opening a canal to connect the waters of Illinois River with those of Lake Michigan.' ''[31] It provided that these lands might be ''used and disposed of by said state for the purpose of making a rail road instead of a canal.'' The time was extended to five years, otherwise the same provisions were to apply. Although it is probable, in the light of other failures, that no such donation would have been made had the lands not already passed from the hands of Congress for a work of internal improvement, yet the authorization of the grant for railway purposes is of real significance. Clearly it marks the rise of railways to recognized importance, and again—and of more immediate interest—it indicates that at this time there was no great disfavor in Congress toward railways, as such. The fact that the grant was not utilized by the state has very little bearing on its historical importance. It was made; that is the significant thing.

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[29] *S. J., 1831–32*, p. 168.

[30] *H. J., 1831–32*, p. 128. The bill only reached a second reading.

[31] *Laws of U. S.*, VIII, 833 (c. 976). Section 2 allowed further time of five years to Ohio for commencing the Miami canal.

THE MOVEMENT FOR DONATIONS GROWS IN VOLUME: 1833–1840

The seven years immediately following 1833 were years of much agitation for donations of land to railways: there were, for instance, at least seven distinct lines under consideration during the 1833–34 session of Congress, and during 1834–35 there were nine. Ohio, Indiana, Michigan, Illinois, Tennessee, Missouri, Louisiana, Alabama, Georgia, and Florida were the states concerned. Roughly speaking, this period of agitation came to an end about 1840 or 1841, and the significance of the fact has already been touched upon in discussing the Mt. Carmel & New Albany Company's attempt to obtain a donation of land in the later years. It may be said that this end came with the pre-emption act of 1841.

THE PRE-EMPTION ACT OF 1841

In 1841 ''an act to appropriate the proceeds of the sales of the public lands, and to grant pre-emption rights''[32] provided that after December 31, 1841, ten per cent. of the net proceeds of public land sales should be paid to Ohio, Indiana, Illinois, Alabama, Missouri, Mississippi, Louisiana, Arkansas, and Michigan.[33] In addition to this distribution of the proceeds of land sales each of the preceding states was granted 500,000 acres specifically for internal improvements, grants previously received for such purposes to be deducted, and a similar grant to new states on admission was provided for.[34] The funds received by the states for these lands were to be ''faithfully applied to objects of internal improvement * * * , namely: roads, railways, bridges, canals, and improvement of water-courses, and draining swamps.''[35]

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[32] *U. S. Statutes at Large*, V, 453. See sections 1, 8, 9, 16 and 17.

[33] In addition to percentages granted on admission.

[34] Under this provision Ohio and Indiana received no land as their grants were already more than twice that amount. *Rep. of Com., 1847-48*, No. 230, p. 15.

[35] Such improvements were to be free to the U. S. for mails, munitions and troops.

Other sections of this act provided that part of the net proceeds of lands sold in Mississippi and Alabama should be applied to certain specified lines of internal improvement in those states,[36] and in the case of Mississippi a railroad was the specified means.

This act, then, has a direct bearing upon the history of railway land grants, for it provides for large donations of land for works of internal improvement, among which the railway was specifically mentioned.

A Break in the Movement: 1840–1845

After the act of 1841 there was almost no mention of land donations to railways in the proceedings of Congress for about four years. Beginning with the 1841–42 session, for which nothing has been found, and down through the 1844–45 session, when but two such measures were presented, the subject seems to have attracted little attention.[37]

The Movement Revives and Increases: 1845–1850

By the middle of the decade, however, the railway land grant issue sprang up with new life. At the 1845–46 session there were two long debates in the Senate—one over a grant of alternate sections in aid of railways undertaken by Michigan;[38] another concerning a bill to aid Mississippi in building a railway from Jackson eastward to the Alabama boundry[39]—and in these debates the subject was thoroughly threshed out. During the 1847–48 session a bill which proposed a land grant for the Mobile & Ohio got so far as to pass the Senate, but failed in the House by a vote of 102 to 80.[40] Meanwhile the number of proposals for donations increased until during 1848–49 there were above ten different lines under consideration for land grants. Mr. Collamer (Vt.) in 1849 stated that shortly before the number of bills "was fifteen, to-wit: three for Michigan, three for Iowa, three for Illinois and Indiana, two for Illinois alone, two for Missouri, one for Mississippi, and one for Alabama. Two petitions, he believed, had been presented since the time he made this estimate."[41] By the 1849–50 session there were at least twenty-five bills for donating land to railways before Congress, and nine of these actually were passed by the Senate.[42]

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[36] Above, p. 350.

[37] 1841–42: Nothing.
1842–43: Resolution to inquire into the expediency of granting 3 or 4 townships to the LaGrange & Memphis railroad (*H. J., 1842–3,* p. 347).
1843–44: Memorial, report, and bill for Northern Cross railroad of Illinois (*H. J., 1843–44,* p. 872; *Sen. Docs., 1843–44,* No. 83).
1844–45: Report asking right-of-way and donation for Tennessee & Coosa railroad (*H. J., 1844–45,* p. 132). Bill to grant Illinois land for Alton & Mt. Carmel, and Shawneetown railroads (*Ibid.,* p. 249, 265).

[38] *Cong. Globe, 1845–46,* p. 481.

[39] *Ibid.,* p. 751.

[40] *H. J., 1847–48,* pp. 1203, 1238–42.

THE DONATION TO THE ILLINOIS CENTRAL: 1850

Finally, on Sept. 20, 1850, came the first of the great land grants—that to the Illinois Central, Mobile & Chicago,[43] and Mobile & Ohio railroads.[44] The grant marks the end of the period under discussion, and the beginning of one of many huge donations. By this act the states of Illinois, Mississippi, and Alabama received alternate sections of land—the even numbered ones—six sections back from the line of the roads on either side;[45] while the odd numbered sections within the limits of the grant were reserved to the government and were not to be sold at less than a double minimum price, i. e., $2.50 per acre. In case lands within the grant were legally occupied by settlers at the time of location of the route, the company might indemnify itself by taking other lands within fifteen miles of its line. As in the case of an early alternate section grant for the Illinois & Michigan Canal,[46] the road was to be a public highway, to serve the United States government free of toll or other charges, and to transport the mails at rates to be fixed by Congress.

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[41] *Cong. Globe, 1848-49*, p. 532.

[42] The grants were to be made to the states in behalf of the railways. They were as follows:

1. To Mississippi for railroad from Brandon to Montgomery (*S. J., 1849-50*, pp. 50, 424).
2. To Iowa for railroad from Dubuque to Keokuk (*Ibid.*, pp. 51, 409).
3. To Missouri for railroad from Hannibal to St. Joseph (*Ibid.*).
4. To Missouri for railroad from St. Louis to West Missouri (*Ibid.*, p. 619).
5. To Alabama for railroad from Mobile to Girard (*Ibid.*, p. 454).
6. To Alabama for railroad from Nashville to Chattanooga (*Ibid.*, p. 558).
7. To Indiana for railroad from Indianapolis to western boundary (*Ibid.*, p. 619).
8. To Wisconsin for railroad from Milwaukee to Mississippi river (*Ibid.*, p. 474).
9. For Tennessee, Mississippi & Alabama railroad Co., in Alabama (*Ibid.*, p. 614).

[43] This line was treated as one with the Illinois Central.

[44] *Statutes at Large.*

[45] 3,751,711 acres were patented or certified for the three lines down to June 30, 1880.

Conclusions Concerning the General Movement: 1830–1850

The conclusions to be drawn from a study of the general movement for donations of land to railways are similar to those reached in the case of the Mt. Carmel & New Albany, being, however, more comprehensive. There were proposals as early as 1830, but from 1833 to 1836 there came a maximum, followed by another period of activity from 1838 to 1840. From 1840 well down to 1846 there was little or no discussion of land grants in Congress, but in the latter year such discussions began in earnest and by 1847–48 we find a bill passing the Senate and receiving eighty votes in the House. It was in this session that the effort to obtain a donation for the Mt. Carmel road was revived. Finally, in 1850, the movement reaches a grand maximum in the passage of the Illinois Central grant. The writer is aware that it would be fallacious to base a judgment as to the strength of a movement solely on the *number* of bills presented from time to time. Other things being equal such a criterion would be valid, but when such is not the case quality as well as quantity has been considered. It is for such reasons, for example, that the activity in the period 1838–40 should be given more weight than that in the one preceding it.

There follows a chart illustrating the number of miles of railway constructed, surplus or deficit, and receipts from land sales during each year from 1830 to 1850. The reason for presenting this chart is that it helps to make clear the bearing of certain economic forces upon the movement we are discussing.

In the analysis of forces presented in the chapter introductory to the general subject of land grants it was stated that the land grant movement was determined by the attitude of Congress toward the land question on the one side, and toward railways (internal improvements) on the other. The curves plotted on the chart give some rough indication of the relative strength

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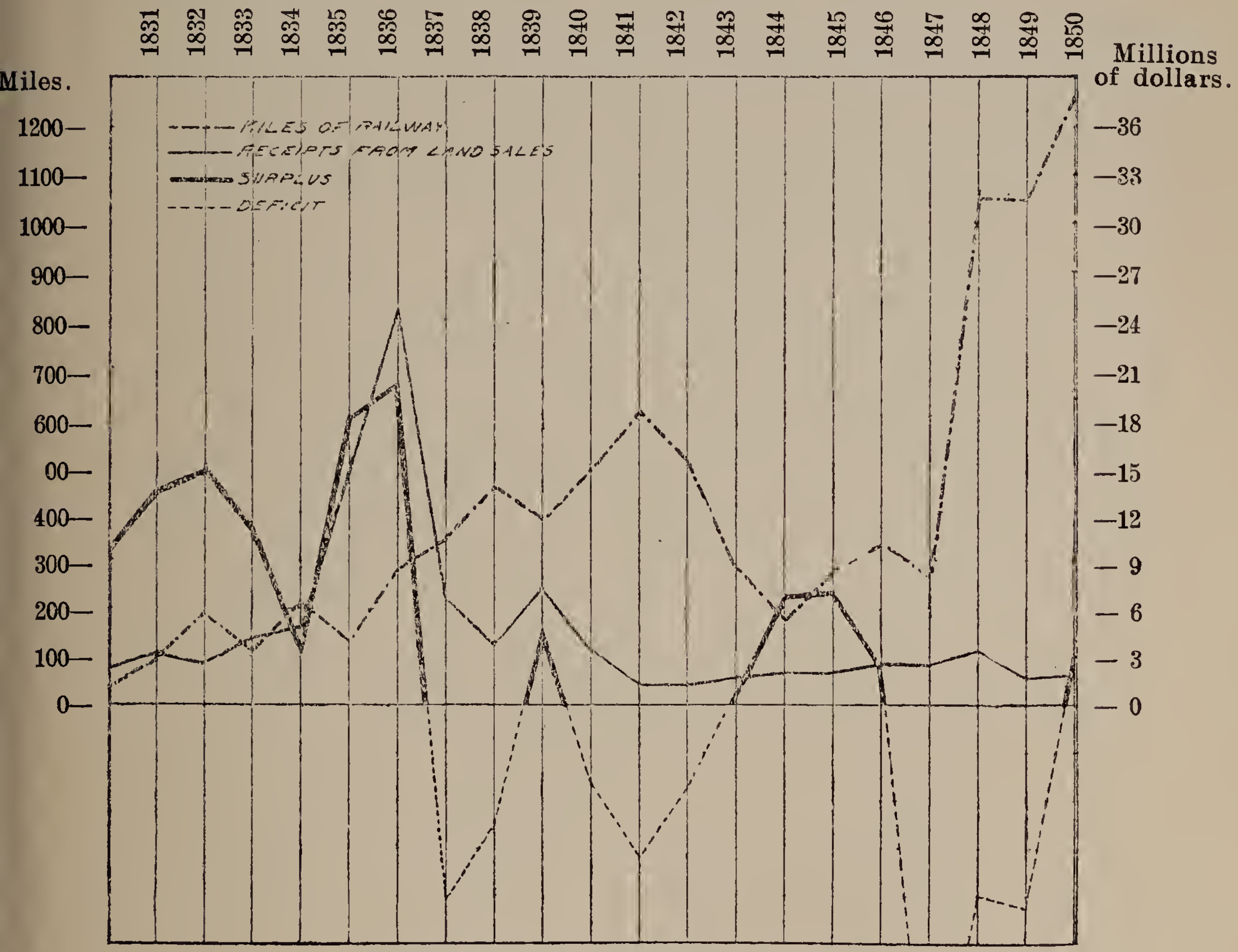
[46] Above, p. 330.



(Figures for the year 1843 are estimates.)

of these attitudes or tendencies. Some relation would certainly exist between the amount of railway construction and the pressure brought to bear upon Congress for aid to railway construction. A curve indicating the mileage added year by year would illustrate at least one factor at work on the demand side of the problem.[47] Not so direct, but nevertheless very real, would be a relation between the condition of the nation's finances and the disposition to make donations of land.[48] A curve exhibiting the the annual surplus or deficit in the treasury illustrates an important factor on the supply side of the problem. The movement for land grants would tend to vary directly with the curve of railway construction, but is modified by conditions determining the facility of supply. The curve indicating receipts from land sales has been added as having some significance in this connection. Therefore, in so far as these factors (and the forces lying back of them and represented by them) determine, it is true that the movement for donations of land to railways would be the result of the interaction of the two and would increase or decrease according to the degree of their increase or decrease. In a broad way the existence of such a relation appears at once. It is most salient that during 1835–36 the factors reinforce one another, the curves moving in the same direction and showing the concomitance of a great surplus and an increase relatively great in railway construction; and at the same time there was much and effective agitation for railway land grants. The prevailing political doctrines and hostility to railways prevented. From 1841 to 1846 there was not much construction, and though the surpluses of 1844–45 coincide with a slight rise in the construction curve, industrial conditions did not cause great demand. Political conditions, too, were unfavorable during Tyler's administration, and the surplus itself was partly due to the protective tariff of 1842 which hampered railway extension by imposing a duty on rails. In 1850 a surplus again appeared and may have helped the grants which ensued.[49]

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[47] The table of duties on railway iron remitted annually closely corresponds to the annual fluctuation in railway construction and strengthens the conclusion. See above, p. 316.

In closing this discussion of the railway land-donation movement a word should be added concerning the influence of general industrial conditions. By 1836 there was a strongly marked tendency toward the speculative construction of internal improvements, which, though most prominent with regard to canals, influenced the projection of railways. In this year the House committee on public lands, in favorably reporting a bill for a donation of lands to Alabama for a railway from Mobile to the Tennessee river, urged that "the present state of prosperity in the country, unexampled at any former period in our history," has produced a spirit of internal improvements which should not be obstructed.[50] In 1836 a convention for promoting internal improvements in Missouri was held at St. Louis and expressed itself as desiring Congress to donate to the state 500,000 acres for that purpose; conventions of similar nature were held elsewhere. Even such states as New York and Pennsylvania were swept away by this current[51] and younger states naturally suffered most. The connection with land grants is obvious, but certain resolutions of the Board of Public Works of Illinois may be cited as illustration.[52] Whereas the general assembly of Illinois, these resolutions run, had, during 1836 and 1837, established a general system of internal improvements, "be it resolved, That our representation in Congress be respectfully requested to use their most diligent efforts to procure the passage of a law * * * making a donation of each alternate section on each side of the most important works * * * ."

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[48] E. g., pp. 102, 142, 201, 204.

[49] The writer would not lay too much stress upon the importance of this reasoning. In the earlier years the fact that the mileage, both aggregate and added each year, was so small may deprive the fluctuations of much significance. And, again, in some cases, it is hard to say whether the agitation of land grants was cause or effect of railway construction; while a prosperous financial condition as indicated by a surplus was a cause for railway construction. Yet when all has been said, there are the relations pointed out, and it is believed that they are valid. Certainly the figure has the value of illustrating almost perfectly the movement for donations, and the analysis suggested has been needed.

By about 1841, as has been stated, the bubble was pricked; but while it was being blown railway construction was relatively rapid and roads were pushed out over public lands in increasing numbers. The crisis of 1837 did not have much immediate effect upon railway construction, as the chart clearly shows. These years, then, were such as might naturally contain agitation for land grants to railways.

The evils of the situation were accentuated by unsound financial dealings, loans being much depended upon and future profits looked to for reimbursement.

After 1841 the reaction set in and the general industrial situation was bad. The currency was chaotic. There was great relative over-production, especially in the West. The tariff of 1842 was a factor,[53] and it will be remembered that at this time a duty was imposed upon the importation of rails. All these things, taken together with the collapse of state activity under a huge burden of debt, are to be borne in mind in connection with the disappearance of the donation issue after 1841.

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[50] *Rep. of Com., 1835-36*, III, No. 607.

[51] See Million, *State Aid to Railways in Missouri*, pp. 7-28, and references.

[52] *Sen. Doc., 1837*, No. 34.

With the recovery of the country in the later '40s an era of rapid railway construction—still fostered by the states but prosecuted by corporations—began, and then came the Illinois Central donation.

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[53] Above, 309.

CHAPTER XIX

THE CONGRESSIONAL PHILOSOPHY OF LAND GRANTS TO RAILWAYS

Having described in detail the movement for donations of land and the working of general economic forces which were concerned in that movement, it is fitting to examine briefly the doctrines and policies which actuated congressmen throughout our period.

Arguments of 1836 vs. Those of 1846[1]

In taking up this matter it is instructive to make cross sections of the committee reports at intervals of, say, a decade, and compare the structure of the arguments there advanced in favor of donating public lands to railways. To take a concrete case at once,—in 1836 Mr. Casey of the House committee on public lands presented a report in favor of making a grant for the Illinois Central Railroad.[2] The chief arguments advanced in this report may be summed up under six heads:

1. *General commercial advantages—from connections and location:* The road begins at a point of interrupted navigation, passes through a very fertile country, and terminates where navigation is closed for many months (on the Ohio). It will connect the Northeast with the great Southwest.
2. *General social and political advantages:* It will promote intercourse and bind together the Union.
3. *Military advantages:* When rivers are impassable, troops and war supplies may be rapidly transported.

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[1] The reader is referred to chapters 2 and 3 of an essay on *Congressional Grants of Land in Aid of Railways*, by J. B. Sanborn (1899, U. of W. Bull., No. 30) for a running account of the arguments in debate over various bills for donating lands for railways.

[2] *Rep. of Com., 1835-36*, II, No. 525.

4. *Mail service:* Mails could be carried at all seasons of the year in one-fourth the time and at one-half the expense now required.

5. *Unsaleable lands:* Most of the lands asked have been on the market from ten to twenty-five years.

6. *Enhanced land values:* It will open up inaccessible lands and add to their value, and so recompense the government.

In addition to these reasons others may be added from a similar and contemporaneous report on the Mobile-Tennessee railroad.[3] Here the prosperous condition of the country was referred to in connection with the desirability of fostering the spirit of internal improvement then prevalent; and it was argued that the existence of great bodies of public land within the boundaries of the states acted as a barrier. There was much complaint, also, throughout this period on the ground that the states were deprived of their right to tax these lands.

THE PROPRIETOR ARGUMENT

The foregoing comprise the important arguments that were used with little variation in favor of donating public lands to railways about the middle of the fourth decade. Of these the most important was that concerning enhanced land values. This may be called the ''proprietor argument,'' as it was based upon the doctrine that the federal government as proprietor of the public lands could properly dispose of them if compensation was received. The idea is clearly stated in a report on the Mt. Carmel & New Albany railroad which was made about this time:[4] '' * * * your committee, keeping within the strict lines of their duty as *guardians of the joint property* of the nation, recommend an appropriation of one-half of these lands *as a financial measure beneficial to the United States, by adding value to the moiety retained.*'' The dominance of the ''proprietor argument'' characterizes the first half of the period between 1830 and 1850.

The desirability of enhancing land values can be regarded from two points of view—the economic and the political. The former is the original aspect; the latter is the derived. At the beginning of the nation the public lands were regarded as a source of wealth from which the public debt was to be extinguished and revenue derived;[5] hence it may be said that economic considerations prevailed. Between 1820 and 1830 sectionalism as between North and South grew deep and fixed, passing from the field of economics—the fundamental one—into that of politics. With the growth of the states' rights doctrines opposed to nationalistic tendencies there came conflicting policies as to the disposition of the public domain, and at the time the only ground of agreement which came into prominence was that the government might grant lands in case it received a *quid pro quo* —in other words, did not make a donation, but sold or exchanged the land for a valuable consideration. This is the political aspect. The application of the idea served as a sop to strict constructionists.

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[3] *Ibid.*, III, No. 607.

[4] *Sen. Docs., 1838-39*, II, No. 49.

Of course the requirment that the road to be benefited have a national importance should be remembered, and this necessity was a reason for arguments one and two.

Turning now to arguments advanced ten years later, it will be interesting to discover if any changes have occurred in the congressional philosophy of land donations. In order that the comparison may be real, take a report of the committee on public lands concerning a grant to Illinois for a railway over practically the same line as that considered in 1836.[6] The arguments run thus:[7]

1. The railroad will connect the mouth of the Ohio with the Great Lakes (1 and 2).
2. It will have military advantages (3).
3. It forms a link in the chain of mail communication between New Orleans and the Great Lakes (4).
4. It will bring much land to market (5 and 6).
5. *It is the duty of the general government to aid the states in this way.*

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[5] See a valuable article in Lalor's *Cyclopedia of Political Science* on Public Lands of the U. S., III, 461.

[6] *Rep. of Com., 1845-46*, II, No. 301.

[7] Figures in parentheses refer to heads on pp. 369-370.

The change is at once apparent; a new point is made; the committee holds it to be the duty of the government to aid the states by giving lands for railways.

The significance of this development appears more clearly, however, in other reports of the same year. On January 30, 1846, the committee on roads and canals reported in favor of a donation for the Northern Cross railway of Illinois. In addition to most of the points thus far discovered, the committee propounds: "Individual enterprise is inadequate to the accomplishment of these great objects" and hence the government should aid. The following words were also used: "Your committee believe it to be the duty of the government to pursue a liberal policy towards new states * * * ." But during the following month came the most notably changed report of all. Under date of February 24, 1846, Mr. Breese of the Senate committee on public lands presented a long historical argument[8] to show that land donations to new states for railways were dictated by both justice and good policy in that by this means the quantity of lands received by the various states would be equalized and also their status as sovereign powers. It was unjust to the new states to let lands lie vacant within their boundaries—contributing nothing in taxes for their support. Moreover, it seemed to the committee neither fair nor just that the states should construct unaided the railways by which the government was to profit.

But the "duty" of Congress toward the states—especially the new states—was not the only new tendency in the arguments for donations. In this same report it was urged that there were many other considerations than the money revenue, which, with all regard to the common benefit, might actuate Congress: "A direct pecuniary gain is not a necessary element"—these were words used by the committee in 1846. Evidently such ideas are diametrically opposed to the doctrine of the "Proprietor Argument." It may be said that, while this same report goes on to state that to some the direct pecuniary gain might seem most persuasive, and proceeds to mention commercial, military, and postal advantages, and while other reports of this time still lay emphasis on enhanced land values,[9] yet it is true that some time between 1836 and 1846 a marked development and change crept into the congressional philosophy of land grants.[10] This change was in the direction of an overthrow of the proprietor argument and tended toward greater "generosity" on the part of Congress: the grounds for it were, (1) justice to the states—especially the new states; (2) the growth of the idea that "direct pecuniary gain is not a necessary element." The latter has been called the "Homestead Idea."

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[8] *Sen. Docs., 1845–46*, No. 152.

The Homestead Idea

It is called the homestead idea because it found expression in the policy of giving land to actual settlers practically free of charge. As time went by the old conservative policy according to which a money gain was to be realized upon the public land began to weaken. The movement for graduated prices and pre-emption laws grew in volume. The committee on public lands voiced the sentiments of a large part of the people when in 1846 it stated that if a policy of giving land to actual settlers had been adopted the wealth and power of the nation would have been greater.[11] As Mr. Bagby (Ala.) stated in debate over a donation of land in aid of Michigan, there was a general wish that the price of the public lands should be reduced.[12] The attitude of the extreme adherents of the land grant and homestead policy may be understood from the language of Mr. Wescott (Fla.) in this same debate. After arguing that no other country had adopted so niggardly a policy as had the United States, he stated that ours was "a miserable, huckstering, peddling policy of selling it out at $1.25 an acre. Although, time after time, session after session of Congress, application had been made to them to graduate the price of these public lands, they had uniformly refused to lower the price, although the lands might remain unsold and unoccupied for twenty-five years. Whilst he was a member of Congress his vote would always be found recorded in favor of any bill granting public lands for any reasonable object; and he would not be very particular in his scrutiny of the probabilities of the utility of the object.'' These words well illustrate the lengths to which the majority of the inhabitants of the ''new'' or ''land'' states would go, and how completely their ideas were at variance with the ''conservative'' policy that was still adhered to by many of the states in the East and South—either because of constitutional scruples or desire to share in the proceeds of the sale of public lands.

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[9] E. g., *Rep. of Com., 1845-46,* IV, No. 793.

[10] In 1840 a preamble and set of resolutions from the state of Tennessee were presented in which the Proprietor idea is taken to task: "Whereas, this Gen'l Assembly do believe, that the public domain of the United States should not be treated by the General Government as a mere source for the acquisition of money to the public treasury, but by reducing the price to reasonable and moderate rates should rather be regarded as the means of great and extensive encouragement to the augmentation of our population, and the reward of the laborer and the husbandman, (by the grant of pre-emption rights) who in times of peril will be a powerful bulwark to the frontier," etc. (*Cong. Globe, 1839-40,* (*Sen.*) p. 116.

[11] *Sen. Docs., 1845-46,* No. 152.

[12] *Cong. Globe, 1845-46,* p. 510 ff.

Land Grant and Homestead Policies not in Conflict

Both the policy of donating lands to railways and that of giving them to settlers were opposed to the policy of selling them: it was Proprietor Policy *vs.* Land Grant and Homestead Policies. But is it true that, in turn, the Land Grant and Homestead Policies were in conflict?[13] This was true only to a very limited extent and no evidence of any great or effective opposition has been found. Indeed, the logic of the matter does not require it. The great question was, ''shall the lands be sold, or donated and the development of their resources be the reward?'' To this question railroad interests and settlers made one answer: ''Give us the land.'' The movements for land donations and free land to settlers went hand in hand. Both grew with the growth of the West. One document makes argument for both.[14] When Mr. Bagby objected to the bill for donating lands to aid Michigan roads, that the price of public lands would be increased, whereas the people wanted a decrease,

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[13] Sanborn, *Cong. Grants of Land in Aid of Railways*, pp. 46–49.

[14] *Sen. Docs., 1845–46*, No. 152. See also speeches by Mr. Davis (Miss.) and Mr. Chase (O.) on grant of land to Miss. (*Cong. Globe, 1849–50*, p. 1290, ff, passim).

Mr. Speight (Miss.) replied that he never before had heard that the people of the West desired a depreciation of the value of their lands.[15]

The truth of the matter is this: A large part of the western settlers wanted both free land for themselves and donations for railways, being, on both counts, at variance with the proprietor idea. The truth of this statement is illustrated by the resolutions of the Arkansas legislature presented in 1849: on the one hand, Arkansas asked that one-tenth of the public lands might be granted to the states in which they lay for purposes of education and internal improvement, and that her 5 per cent. fund be paid in land; on the other, that the price of public lands might be reduced. One great difficulty in settling the West was a lack of accessibility to markets: and outlet for his surplus production was the need of the farmer, and he favored internal improvements as a means of satisfying this need. Railways and donations of land to railways were so favored and in many cases the settler knew that the profitableness of his venture depended upon the construction of a railway.

It would be erroneous to believe that the opposition to the reservation by the government of alternate sections for sale at a double minimum price, which undoubtedly existed on the part of many settlers, meant an opposition between land donation and homestead ideas. This was not opposition to the donation, but to the incidental proprietor idea—to the provision for receiving an enhanced value—and a strong tendency appeared toward the close of the period to modify donations in this direction.

There was some opposition, too, to the railways as "corporations," "moneyed powers," "monopolies," etc.; but this had nothing to do with the attitude of homesteaders as such.[16] It indicates no conflict between the homestead policy and the land donation policy.

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[15] *Cong. Globe, 1845-46* (Sen.), p. 510 ff.

Above, p. 353.

[16] The report of the Engineer for the Eastern Shore Rail Road (Md.) submitted to Congress in 1837 (*Sen. Docs., 1836-37,* III, No. 218) contains the following words: "With many there exists a repugnance to railroads, arising, perhaps from their apparent want of harmony with the settled habits of the community," and he accordingly added an appendix (a) which related the benefits to English land owners from railways.

The only real conflict that existed between the idea of donation to railways and the homestead policy was one that played no considerable or effective part in congressional action. This was the fact that the adoption of a homestead policy might deprive the lands donated to railways of much of their value by decreasing the demand for them. This point was made by Mr. Smith (Conn.) in debate on a Mississippi grant.[17] Obviously the application of this conflict was limited by the fact that lands adjacent to a railway were enhanced in value by the advantage of their position.

A comparison of votes cast in the House for a homestead bill on the one hand and a bill granting lands to Iowa on the other evidences no conflict, but rather a union of the two ideas. It seems that 51 favored both bills, 43 were against both, 35 were for homesteads and against the donation, while two favored the donation and opposed the homestead bill.[18] In the absence of contrary evidence it is fair to assume that the 43 negative votes were opposed to the two bills on the same or similar grounds, and that 94 out of 131 saw no conflict between the two systems. And when it is reflected that many of the 35 votes in opposition to donation probably were not cast against the donation principle, but against the proprietor idea—or were merely "agin the railroads"—the case is the stronger.

ARGUMENTS AGAINST LAND DONATIONS AND ANSWERS: 1848

From a report made in 1848 by the Senate committee on public lands the chief objections to donating land to railways may be gathered.[19] (1) The particular grant involved was one to the Illinois Central and the objection was made that it was too large. On this point it was replied that the extent of the grant was in proportion to the great length of the road, and the fact that much of the land was unsaleable simply because of its distance from market warranted such length and extent. (2) Some opposition was aroused on the score that these grants were boons conferred gratis upon the states; but the committee mentioned the cost of constructing the railway borne by the recipient, estimating it at about $15,000 a mile, and referred to enhanced values as a return. (3) An argument against donations which was given considerable emphasis by some was that the states might keep the land for speculative purposes or otherwise improperly apply it. In answer it was urged that to so abuse a donation was not to the interest of the states; that the desirability of a dense population and abundant revenue from taxation made it good policy to sell them. (4) Probably the most important and long continued objection, however, rested on the ground that the public domain was pledged as a fund for the public debt, and to make donations in diminution of this fund would be a breach of good faith. This argument is closely connected with the idea that the government held the lands as proprietor in trust for the states. The reply to this reasoning was twofold: the grant was but an extremely small part of the public lands; and by enhancing the value of the remainder it would increase the ability of the government to pay. (5) Lastly, it was complained that the old states would lose by these grants as they should share in the public lands. But that the old states would lose anything was denied, for new markets would be opened and trade increase till they would really be gainers through enlarged commerce. This was a very modest and moderate reply; elsewhere western states did not admit the right of the Old States to share in the lands they contained, but claimed them as their own due.

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[17] *Cong. Globe, 1849-50,* p. 1290 ff.

[18] Taken from Sanborn's *Cong. grants, etc.,* p. 48. That writer holds that the homestead doctrine was opposed to the land grant system.

[19] *Rep. of Com., 1848-49,* No. 240.

THE INFLUENCE OF SECTIONAL INTERESTS

In the remarks introductory to the history of land grants it was stated that the determination of land donations was the result of the co-operation of two factors, namely, land policies and internal improvement policies, and that these two policies in their turn might be analyzed. This further analysis at once leads back to sectional interests.

1. *Internal Improvements and Railways*

The attitude of the typical, orthodox "Southerner" toward government participation in railway construction might be summed up in saying he held to strict construction or was a "states' rights" man. Some time between 1824 and 1834 those interested in the institution of slavery came to realize that the interests of the North were not their interests, and that by the northern states slavery was regarded with growing repugnance. The predominant class of the South came to realize "that state sovereignty and the strictest construction concerning the functions and powers of the general government were the bulwark of its safety; that any sort of interference with the home affairs of the slave states, even in the way of internal improvement, would tend to undermine."[20] Thus slavery led the South to stand for a narrow construction of the powers of Congress and to tend strongly against government aid to railways, though in not a few cases local interest overcame general prejudice.

In 1848 Mr. Bagby (Ala.) submitted a series of resolutions in the Senate[21] to the effect that as the constitution was a compact between co-equal sovereigns delegating specified powers to the general government for the mutual benefit, powers not so delegated remained with the states or people, and that among them was the power to make internal improvements. He concluded that "any attempt by the General Government, under any pretext whatsoever, to construct roads, cut canals, or improve the navigation of any river within the limits of any one or more of the States * * * is a palpable violation of the Constitution, or if it be within the limits of a State or States is a direct and dangerous encroachment on the rights and sovereignty thereof."

It should be added that certain New England interests showed tendencies quite similar, both at the Hartford Convention and later. The West, too, chafing under measures carried by eastern votes, at times gave voice to similar sentiments. In the latter section, there was dissatisfaction over the public lands, and Senator Bowlin (Mo.) during 1849–50 expressed both this and a states' rights attitude, saying that when a sovereign state of the confederacy wanted a pittance of her own sacred soil to aid in internal improvement she got no satisfaction; but was either turned away and reproached with aiding land stealing schemes, or given small amounts with alternate sections doubled in price.[22] In general, however, there was a broad division between North and South on the subject, based upon the economic opposition between an agricultural, slave-holding section and an industrial, free section.

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[20] Shurz, *Clay*, I, 313.

[21] *S. J., 1847-48*, p. 117.

2. *The Public Domain and Land Grants*

Senator Bowlin's complaint brings up the other factor in the analysis—land. Here the alignment of sections was somewhat different and more complex. Beginning with the South, it is noteworthy that the deep-lying economic peculiarities of this section which led up to the states' rights doctrine found more immediate and practical expression with regard to the tariff and the public domain.[23] In the first place, the general strict-constructionist idea which affected her attitude toward internal improvement also entered into the South's land policy, and in some instances she demanded that the public domain be given over to the several states in which it lay, to be disposed of at their pleasure. The interaction of the two factors, land and internal improvement policies, together with the South's attitude, may be illustrated by a report of the committee on public lands made in favor of a donation to the Illinois Central.[24] One point set forth in a very conservative way the argument that the government was a great land-owner, though in trust for the states, and as such could lawfully take steps to render its lands more valuable by making railways through them: It was stated that *"a denial of this right would seem to involve a denial of the right to own them."* Now to deny this right was exactly what a large part of the South did. The resolutions offered by Senator Bagby[25] represented the prevalent doctrine of the South in opposing federal internal improvement and that opposition, as the committee saw, involved a denial of the right to own the public domain. A Florida senator in debate stated that he favored the entire cession of the public lands to the respective states in which they lay.[26] Senator Bowlin's complaint is sufficient indication of this point, and he said that the new states were looking forward eagerly to the time when their land should be their own. But in closing the discussion of this first phase of the South's attitude toward land grants, attention should again be called to the fact that the interests of land-holding and non-land-holding states were not identical and that both kinds lay in the "South." There was an East and West within the southern section, and it was the western element that was keenest for land distribution. The South's attitude toward retrocession formed a bond between herself and the West.

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[22] *Cong. Globe, 1849-50*, Appendix, p. 330.

[23] See Ballagh, J. C., *Southern Economic History: Tariff and Public Lands* in *Amer. Hist. Assoc. Rep., 1898*, I. A valuable article for the South's policy and sectionalism in general.

[24] *Rep. of Com. 1848-49*, No. 244.

[25] Above, p. 378.

There were those, too, who argued that as a general cession of public lands to the states was desirable, so grants of smaller amounts—for railways—were not to be objected to. This naive bit of logic does not seem to have gained currency, however.

In the second place, the existence of slavery in the South affected not only her general political ideas by making her sensitive on the subject of states' rights, but more particularly it directly colored her views on the land question. Extension to new lands was necesary to the perpetuation of the existing system of agriculture, whether from an economic or a political point of view, and to this end the South might tend to favor land donations.[27] But the movement of cotton and slavery westward was characterized by the establishment of large plantations and the ousting of small-scale, free farmers. Any system of disposing of the public domain which encouraged small scale farming by free labor was opposed to the slaveholder's interests, and the South tended to look upon homestead acts with disfavor. Thus there would seem to be a conflict between desire for land and opposition to free settlement. But in so far as gratuitous grants or liberal terms fostered a settlement by farmers and impeded the spread of the plantation system, the South was opposed to them, and only in so far as such grants were available for the land system of the South, or as the South made deliberate concessions to conciliate the West, did she favor them.

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[26] *Cong. Globe, 1845–46*, p. 511. (Sen. Yulee.)

[27] Ballagh, J. C., *Tariff and Public Lands*, in *Amer. Hist. Assoc. Rep., 1898*, I, 237 ff.

Finally, the South's attitude toward the tariff played a part. The tariff is mentioned here because of its close connection with the government's land policy. It was the conservative, strict-constructionist idea that the public domain should be disposed of by sale and the proceeds be applied to the public debt or current expenses. Obviously—other things being equal—just to the extent this was done the necessity for revenue from other sources would decrease; hence if one section desired a tariff it would tend to favor diminishing revenues from other sources in order to make that tariff needed, while free-trade advocates, as Southerners early became, would look with disfavor on donations of land which decreased receipts from that source and made room for revenue from duties on imports.[28] The South's attitude toward the tariff, then, tended to reinforce her conservatism in the disposition of public lands.

But the desire of the South to conciliate the West and to attach that section to herself led her in some cases to take a less conservative course toward the disposition of the public lands, and the existence of the "western" or "new state" element in the greater South should again be remembered. Some evidence of this condition probably appears in an episode of the debate on a bill granting the right-of-way and a donation of public land to Mississippi for a railway from Brandon to her eastern border.[29] An amendment which proposed to strike out that part of the bill which provided for raising the price of sections reserved for the government being under discussion, Mr. Dawson (Ga.) argued that this would be overthrowing the established principle upon which grants had previously been made. He appealed particularly to Mr. Davis (Miss.)—who had spoken in favor of the amendment—asking if he would consent to the abandonment of that principle on which the majority had acted—the principle that "it is not an appropriation for internal improvements directly, nor even a donation," inasmuch as compensation was assured through provision for enhancing the value of the reserved sections. Mr. Davis replied that he did not believe the amendment involved an abandonment of the proprietor principle. He was convinced that, as the land had been on the market for twenty or thirty years and was either poor or remotely situated, the government would gain by disposing of it at any price, or even by giving it away. The attitude of the Mississippi senator seems an attempt to reconcile a generous land policy to some show of the conservative proprietor idea, and the difference between the two speakers was one typical of the sections they represented—Georgia and Mississippi—landless and landed, "South" and "Southwest."

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[28] The statement that the South stood for gratuitous grants or liberal terms in order that revenues available for expenditure on internal improvements might be reduced does not seem well founded. No evidence has been found for it in this study. Moreover, it is in conflict with the logic of the case. In the first place, it would only apply where such grants did not lead to introduction of settlers at variance with the predominant southern system, as indicated above. Again, it conflicts with the fact that increased land revenues made tariff less necessary, and the South was perhaps more generally opposed to tariffs than to internal improvements. Finally, this idea could naturally only arise at times when there was agitaton for federal internal improvements and a surplus revenue. The reasoning here controverted occurs in J. C. Ballagh's monograph in the *Amer. Hist. Assoc. Report* for 1898, cited above.

[29] See *Cong. Globe, 1849–50 (Sen.)*, p. 1290.

On the part of those eastern states not embraced in the South there was less of sentiment or political creed involved and there were not the deep economic peculiarities that marked the South. One factor was the interest of those who desired a high tariff for protection. This was especially strong in Pennsylvania and the middle states. Such states "feared that if the revenue became excessive the tariff must be lowered,"[30] and this fear operated to induce a favorable attitude toward land grants as a means of preventing an excessive revenue. But there were other and conflicting factors here, among which the opposition between landed and non-landholding states appear.[31] For instance, in 1847, Mr. Archer presented the petition of the citizens of Philadelphia praying that no public lands might thereafter be granted to states except for purposes of internal improvement.[32] This indicated opposition to the agitation for pre-emption laws and graduated prices for public lands that was then prevalent in the new states, but it shows a tendency and the same spirit was evinced toward donating lands for railways—namely, one of scattering opposition. Some feared the speculation that was undoubtedly fostered by land grants. Owing to ideas concerning government functions, tariff, and railway construction which prevailed in the northeastern and middle states, this opposition was not general, but there was the feeling that the public lands should be disposed of by sale and that the eastern states should share in the proceeds, either directly or indirectly through reduction in public debt and taxes. The non-landholding states complained that they were not receiving their due benefit from the disposition of the public domain.

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[30] Dewey, *Financial History of the U. S.*, p. 217.

[31] See above, p. 345.

[32] *S. J., 1846–47*, p. 92.

On the other hand, the West—or, better, the land states—complaining of abridged sovereignty, argued for grants of land to the states for railways and other purposes on the ground that such grants would no more than equalize amounts donated to old and new states. In 1845–46 Mr. Yulee (Fla.) expressed himself as willing to concur in any legislation for reaching equality "by bringing all the new states up to the ratio of that one of them which had received the largest quantity." —which, he believed, was Indiana.[33] He was asked, why not give a similar amount to the old states, and replied that the exemption from taxation of public lands within their borders was the inducement in the case of the new states. In championing a land grant for railways in his state, a Michigan Senator declaimed to a colleague from Connecticut: "Are we to go on doing everything and you nothing? You do not even pay your share of the ordinary expenses of state government * * * You have the benefit of our taxes, but pay none yourself."[34]

Not long after the close of the period of centralistic tendencies that followed the war of 1812, John Marshall, in favoring the devotion of all the proceeds of public lands to deporting negroes, said: "The lands are the property of the United States, and have hitherto been disposed of by the government under the idea of absolute ownership."[35] Quite as federalistic were the words of Senator Cass (Mich.) when some fifteen years later he argued for a donation of land to Michigan. The General Government, he said, is a great land-holder, which, though ordinary jurisdiction passes to the state governments upon their formation, still has ample power to donate of its domain for these purposes. "It has got the authority to make all *needful rules and regulations for the disposition of its property,* and to dispose of it just as it pleases, restrained only by a wholesome discretion."[36] The attitude of the West toward homesteads and pre-emptions has been referred to. From all that has gone before it is clear that this section generally stood for broad interpretation of Congress' power over public lands and tended to favor donations of all sorts.

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[33] *Cong. Globe, 1845–46 (Sen.)*, p. 751 ff.

[34] *Ibid.*, p. 744.

[35] *15th Annual Report of the Colonization Society*, p. 32.

It is interesting to reflect that it was the West, the seat of individual enterprise, which urged government powers all but paternal. It was the sturdy, hustling West that upheld the benefit derived from government aid to its settlement and enterprise. While the conservative East, the lingering place of Federalism, it was, that glorified individualism and decried federal interference. Such is the power of economic interest to mold and beget sectionalism.[37]

Here is apparent the opportunism of American politics.

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[36] *Cong. Globe, 1845–46*, p. 743. The italics appear in the *Globe.*

[37] The debate beginning p. 742 of *Cong. Globe, 1845–46*, is extremely interesting and instructive. Here Calhoun explains his ideas, Niles of Connecticut argues characteristically, and Cass of Michigan upholds the new state idea..

BOOK III

RAILWAYS TO THE PACIFIC

PART I.—ISTHMIAN PROJECTS.*

CHAPTER XX

HISTORY OF ISTHMIAN TRANSPORTATION PROJECTS WITH ESPECIAL REGARD TO RAILWAYS

Introductory Account of Transportation Projects Under Spain

The political and commercial importance of the narrow land bridge between the continents of North and South America were early recognized by Spain. Here, by a few miles overland travel, one could enter the great Pacific whose waters washed the far Spice Isles and the golden shores of the Orient. Just a little to the south lay Peru, and Pizzaro noted the significance of the isthmus of Darien. Balboa in 1513 was the first European to cross the isthmus, at which time he trod his classic steps into the calm waters of the new ocean, claiming them for his master, the king of Spain. To more practical effect, he actually transported materials across the mountains for constructing a small fleet with which to make the conquest of the "South Sea."[1] King Ferdinand established a line of posts from sea to sea, and by his order the city of Panama was begun during the month of August, 1517, a road being constructed to this point from Nombre de Dios. In 1522 Gonzales discovered Lake Nicaragua and sailed down the San Juan river to the

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* The term isthmus will be used to cover the whole extent of narrow land between Tehuantepec and Darien, thus embracing the Tehuantepec, Nicaragua, Panama and Darien routes.

[1] See *Rep. of Isth. Canal Com., 1899–1901*, Wash., D. C. 1901 (*H. R. 15*) This contains a valuable introductory chapter on early Isthmian projects.

Gulf. Charles V. took an active interest in establishing communication across the isthmus, and, though the hoped-for strait was not to be discovered, commerce increased and Panama became an important port. The gold and silver of Peru and the wealth of Asiatic trade were here transhipped, and caried in packs across the isthmus to be placed aboard homeward bound galleons. But little later—between 1520 and 1527—Cortez in Mexico explored both coasts to the north. He found the most feasible route to lie up the Coatzacoalcos river and thence across the isthmus to Tehuantepec, and a profitable commerce soon followed that line.[2] Finally Charles V. had an examination made with the idea of connecting the head of navigation on the Chagres with the Pacific by means of a canal, but this was reported to be impracticable. Thus in the early days of exploration Spain was active in seeking to develop a practicable line of transportation across the isthmus, and the Panama and Tehuantepec routes were followed by lucrative trade.

When Phillip II. came to the throne experimentation ceased. Spain for a time attempted to conceal from the world the significance of the isthmian region,[3] and not till toward the close of the eighteenth century did new projects become of importance. "At the close of the eighteenth century * * * the Cordilleras still kept the two oceans apart; the old transits had fallen into disuse * * *; the chief exception being at Tehuantepec, where a communication across the isthmus had once more been opened."[4]

QUASI-PRIVATE PROJECTS OF FOREIGN INTERESTS: 1827–1850

Von Humboldt's visit and the account concerning isthmian conditions and topography which he published aroused new interest[5] in connecting the two oceans, but the glory of this feat was forever denied to Spain, for the revolt of Mexico in 1822 and of her other American colonies at about this time gave the isthmus itself into other hands and the work was taken up by the various states of America. A period ensues which for the most part is characterized by an attempt to exploit the isthmian transportation possibilities by various private individuals or corporations. Several European governments were concerned, as were, of course, those states of Central America through which the different routes passed; but the ends were not predominatingly nor largely political. This was the period, too, when the railway began to play a part in the various projects.

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[2] *Ibid.*, p. 29.

[3] See *Niles' Register*, LXV, 302-3, for a sketch of the history of isthmian communications.

[4] *Rep. of Isth. Can. Com.*, above cited.

[5] *Niles' Register*, LXV, 302-3.

Remembering that as early as 1825 the enterprise of the United States began to figure in this matter,[6] it will be well to first proceed with the thread of foreign events.

Between 1819 and 1821 Bolivar—as President of Columbia, a political unit embracing New Granada, Venezuela, and Ecuador—was stimulated by Humboldt's work to conceive plans for joining the seas, and in 1827 one, J. A. Lloyd, made surveys to that end. He advised the use of a canal, the river Chagres, and a railroad from thence to Panama; but the only result from the investigation seems to have been to prove that a good road of some description was entirely practicable.[7]

About the same time (1830) the Holland—or Netherlands—Company, in which the government of that name was interested, was projecting a canal over the Nicaragua route, but the project was soon abandoned.

The next important development was the granting of the privilege to construct a canal at Panama to Count Charles de Thierry, an Englishman by birth. The grant was made by New Granada in 1835. De Thierry was unable to carry out his plans, however, and got French capitalists of Guadaloupe to take them over.[8] These new interests secured valuable concessions, but, though the time limit was extended more than once, they were unable to utilize them. It is significant that the means considered were either a canal, railway, or macadamized road. But in 1843 an engineer named Napoleon Garella reported against the railway on the ground that such a means was of local interest only, and nothing less than a ship canal would attract the world's commerce.[9]

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[6] 1825-26, Aaron H. Palmer of N. Y. obtained a transportation contract and endeavored to interest capitalists in this country and England; but failed, and his contract expired.

[7] The article in *Niles' Register* above cited says, "Unfortunately these two talented engineers (the surveyors). occupied solely with the idea of rendering the Chagres river navigable, and of connecting it with Panama by a railroad, directed their attention in the first place to Cruces, whence they descended to Chagres, leaving thus unexplored the wide valley extending along the left bank of the river."

[8] See *Niles' Register*, LXV, 279 (1839); *ibid.*, 303; and *Rep. of Isth. Can. Com.*

Other developments came in 1842 when the Mexican government appears to have given to a certain Don Jose de Garay exclusive privileges at Tehuantepec;[10] and in May, 1847, New Granada granted to the Panama Company, a French concern represented by Mateo Kline, exclusive right for ninety-nine years to construct a railway across the isthmus, which right was forfeited through failure to carry out the contract.[11] About this time Great Britian was pursuing an aggressive policy in Central America looking toward acquiring control of the San Juan river, and this condition led up to the now famous Clayton-Bulwer treaty of 1850, with which treaty this brief record of foreign isthmian projects may be closed. Sufficient material has been presented to emphasize the nature of the period from 1827 to 1850 as one during which French, English, Dutch, Mexican, and American companies projected canals and railways over the isthmian region.

THE UNITED STATES TAKES A HAND

The private projects just recorded seem to have been made with little or no regard to the United States of America; but the successful revolt of the Spanish colonies and political developments in Europe and this country soon made such a condition impossible. In 1823 the Monroe Dectrine was formulated, and from that time on the construction of a canal or railroad over the isthmus by European interests with no reference to the interests of the United States nor surety against encroachment upon the sovereignty of the American republics became increasingly improbable. The opposition to sending delegates to the Panama Congress (1824–26), however, seems to indicate that at this time sentiment against the interference of European powers was not as general as might be supposed. Very soon after the fall of Spanish power in America evidence appears that Congress was taking interest in isthmian communication developments. In 1825 the House resolved "That the Committee on Naval Affairs be instructed to inquire into the expediency of establishing a line of communication between the Atlantic and Pacific Oceans, though the Isthmus of Panama."[12] No action was taken upon the resolution, but at the following session a similar resolution led to a report on the subject.[13] It will be observed that it was just at this time that Aaron H. Palmer of New York was endeavoring to float his isthmian enterprise. This early show of interest by Congress is doubtless to be connected with the events surrounding the revolt of the Spanish American colonies, the Monroe Doctrine, and the Panama Congress. The first very active participation of the United States in isthmian transportation projects only came some ten years later.

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[9] *Rep. of Com., 1848–49,* No. 145, p. 589. The whole volume is devoted to engineers' reports, travellers' accounts, etc. concerning transportation to the Pacific.

[10] *De Bow's Review, 1847,* pp. 496–502. See below, p. 397. *Sen. Docs., 1851–52,* X, No. 97.

[11] *Rep of Isth. Canal Com.,* p. 50.

The Mission of Colonel Charles Biddle

On March 3, 1835, the Senate passed a resolution to the effect that the President be requested to take steps for protecting isthmian projectors in their rights.[14] Accordingly, in 1837, a message from President Jackson was submitted which stated that the above request had been complied with and that an agent had been despatched to examine the various routes and the "state of projects * * * understood to be contemplated for opening such communication by a canal or a railroad."[15] The message concluded by announcing that the probablity of a speedy opening of communication was not so great as to require a treaty. The agent referred to was one Col. Charles Biddle and this mission of his forms one of the most interesting episodes in the history of isthmian transportation history. When Biddle, in pursuance of his instructions, arrived on the isthmus, he found that exclusive canal privileges had been granted to De Thierry,[16] and, instead of merely collecting information concerning various routes and projects, he proceeded to rival that speculator. Now his only chance of success in opposing De Thierry's canal project lay in obtaining railway concessions, so he labored to persuade the people of New Granada that a canal was entirely unfeasible and that a railway was the best means. Events prove that he did this with the idea of private gain; for, as a writer quoted in *Niles' Register* states,[17] "Col. Biddle, misled by jealousy (of Thierry), and forgetting the objects of his mission, asked and obtained *in his own name* a charter authorizing him to construct a railroad * * * at a distance to the right or left of three miles beyond the projected canal." Of this charter Biddle himself wrote: "The principal items of the agreement are these—'Two-thirds of the stock is the property of Charles Biddle and such citizens of the United States as he may associate with him; the remaining one-third is the property of the New Granadians. The office of the company is to be Philadelphia, and all installments are to be paid there; and the number of directors is to be in the same proportion as the quantity of stock.' "[18]

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[12] *H. J., 1825-26,* p. 71.

[13] *H. J., 1826-27,* pp. 101, 200.

[14] *S. J., 1834-35,* p. 238.

[15] *Ibid., 1836-37,* pp. 100-101.

After some correspondence over the matter the government disapproved of Biddle's action, and he returned to the United States, where he shortly died,—of mortification, we are told.

Biddle's plan involved steamboat transportation up the Chagres river to Cruces, thence by railway a distance of fifteen miles to the Pacific. The route, he reported, offered no greater obstacles than that from Washington to Baltimore and over it a safe conveyance from the Atlantic to the Pacific could be secured in six hours.[19] His exploit could not but have attracted considerable attention and is of no small significance in the history of isthmian railway projects.

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[16] Above, p. 388.

[17] LXV (ch. 20), 202, 203.

[18] *Rep. of Com., 1848-49*, No. 145, p. 273.

[19] *Ibid.*, p. 271. For detailed matter concerning this subject, this report of 1848-49 is a source. See pp. 271 ff. and p. 217. Page 314 gives a translation of the act of New Granada.

Shortly after Biddle's ill-starred mission the subject of a Panama railway was brought up in the House, but no action taken. Mr. Underwood submitted certain joint resolutions, the burden of which was as follows: The President was to open correspondence with the confederacy of Central America with regard to joining the commerce of the Gulf with that of the Pacific "by means of a railroad or a canal, or both;" he was requested to make a treaty providing for the protection of United States citizens who might invest in such a railway or canal; and, with the confederacy's consent, to depute engineers to survey routes for the undertaking.[20] Though nothing came of these resolutions, they are significant as an indication of the interest of at least a part of Congress in a route across the isthmus,—as a straw showing wither the wind was tending.

ISTHMIAN RAILWAYS BECOME OF GREAT NATIONAL IMPORTANCE: 1846

For a decade after Col. Biddle's project Congress did not participate in the movement for an isthmian way to the Pacific. Following the unsuccessful resolutions just noted, there were several memorials,—one in 1840, by W. A. Duer, for surveys with a view to finding out the practicability of a ship canal at Panama,[21] and one in 1842 by merchants of Philadelphia for a line of packets to Chagres and an overland mail to Panama,[22] but not till 1846 was important action taken. Then the growing importance of this matter was realized, and a treaty was consummated with New Granada for securing transit rights across the isthmus: the United States undertook, in consideration of free and uninterrupted right-of-way over the isthmus of Panama, to guarantee to New Granda, for a period of twenty years, the neutrality of this isthmus and the sovereignty of that state over its territory.[23] The treaty was formally ratified in 1848, and that its significance as a new development in the country's foreign policy was recognized is indicated by the following passage from a report by the committee on naval affairs: "This is a very wide departure from our foreign policy hitherto, and its justification is only to be found in the exigency of the case—the over-ruling necessities of our position with reference to our territories on the Pacific. * * * This treaty, therefore, is but a simple advertisement to all the world, that for the next twenty years at least we will, with the permission of New Granada, cross the isthmus of Panama, and you must not interfere."[24] This recognition of "the necessities of our position" could not but have come at the time it did. It was a time of war with Mexico and the acquisition of Texas and California. Already emigrants to the Pacific coast moved in such numbers as to make the safety and facility of their course a matter of national solicitude; the establishment of postal connections became a problem; it seemed certain that Great Britain had designs upon the Nicaraguan route. In 1848 gold was discovered in California, and was sought by a stream of "forty-niners." From 1848 on an efficient communication over the isthmus was but a question of time. New factors had come into existence which made the question distinctly a national one, and marked the beginning of a new period of interest in isthmian railway projects.

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[20] *H. J., 1838-39*, p. 170. Debate arising on these resolutions, they were laid over under the rule.

[21] *S. J., 1839-40*, p. 152.

[22] *Niles' Register*, LXIII, 380.

[23] *Rep. of Com., 1848-49*, No. 26, pp. 15-16.

THE PACIFIC MAIL COMPANY'S PANAMA RAILROAD

Probably the most important of isthmian railway projects from a congressional point of view is that of the Pacific Mail Company, an organization headed by W. H. Aspinwall, J. L. Stephens, and H. Chauncey. In 1848 these gentlemen memorialized Congress with reference to a railroad across the Isthmus of Panama: "The acquisition of California and the settlement of our boundry line in Oregon," they relate, "have opened a new era in the history of this country. * * * Already it is felt as a hardship by those who go out from amongst us, that, once settled in California and Oregon, they are, to a great extent, cut off from all the dearest relations of life; that there are no means of returning, or of personal intercourse with friends at home, except by the stormiest passage ever known at sea (around Cape Horn), or the most toilsome journey ever made by land.''[25] This deplorable condition they proposed to remedy by constructing a railway over the isthmus of Panama, a distance of less than 50 miles.

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[24] *Ibid.*, p. 16.

The memorialists went on to recite that the Panama route was probably worse than in the early days of Spanish dominion. No wheel carriage had ever made the passage. From twenty-eight to thirty hours were required to ascend the Chagres in canoes to a point whence a difficult mule road led down to Panama by a journey of from eight to ten hours. The company being engaged in transporting the mail from Panama to California and Oregon, their own interests led them to make an examination and survey[26] with the idea of improving the road, and finally to secure from the republic of New Granada the privilege of constructing a trans-isthmian railway, good for ninety-nine years.[27] In this step they seem to have had some encouragement from ''several gentlemen in high position at Washington.''

Having proceeded thus far in their own interest, the company realized that this was a ''great American work'' upon which they were engaged, and asked the co-operation and aid of Congress. They requested no advance of money, but a twenty-year contract for the transportation of army and navy stores, troops, public agents, and the United States mails, with compensation not to exceed the amount stipulated by law to be paid for the transportation of mails to Liverpool.

In reporting upon this memorial, Mr. T. Butler King of the committee on naval affairs stated it to be the company's intention to construct a railway across the isthmus, *if suitably aided*

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[25] *Sen. Misc., 1848–49*, I, No. 1.

[26] The report of the engineer concerning this first examinaton may be found in *Rep. of Com., 1848–49,* No. 145, p. 669.

[27] A copy of this charter is appended to *Rep. of Com., 1848–49,* No. 26, pp. 26–41. The memorial incorrectly states the period as ninety-nine years. That was the time granted to the French company represented by Kline (above, p. 389), but Aspinwall's charter only ran for forty-nine years. Otherwise they took over the French company's rights, which company had failed to make the required deposit.

by the government.[28] It therefore became the *duty* of Congress, in the light of our recent expansion, to consider whether commercial, industrial, and military interests did not justify a grant of such aid as might secure the completion of the proposed railway. The report emphasizes the importance of the road as a factor in Pacific commerce[29] and the necessity for securing its management to American interests. Moreover, the people of the United States were anxiously looking for the completion of a railway from the Mississippi to San Francisco, and this Panama railway would form a southern branch, as it were, of the great scheme of uniting the two oceans; between the northern route and the Panama line no parallel communication would be necessary.

Accordingly the committee recommended a grant of $250,000 per annum, as being an amount equal to 5 per cent. on the proposed investment, and not greatly in excess of what the government would pay for the stipulated services. Mr. Benton (Mo.) brought in the bill, which differed somewhat from the measure recommended by the committee in the amount of the grant.[30] The bill proposed an annual sum not to exceed three-fourths of the amount stipulated by law to be paid for the transportation of mail from New York to Liverpool. This, it seems, was equivalent to $300,000 per year, and in twenty years would amount to a total of $6,000,000, which, it was argued by Mr. Breese (Ill.) would yield a profit of $4,000,000 over the estimated cost of the road, not to mention tolls on traffic other than that furnished by the government.

The chief objection to the bill, however, turned upon the subject of monopoly. Mr. Hale (N. H.) opened the fire on this score by opposing it as a "contract" with three individuals, —a word which, he said, had grown somewhat odious of late,— and a monopoly, all citizens of the United States other than Mr. Wm. H. Aspinwall, John L. Stephens, and Mr. Chauncey, being by this bill deprived, for 20 years, of the privileges which might accrue.[31] Mr. Johnson (Md.) argued that as no limitation had been put upon rates of charge, these might be made so high as to be exorbitant and yield enormous profits. The objection of Mr. Allen put the whole matter concisely: ''I desire to say that I shall oppose any form of proposition, come from what quarter it may, which has for its object to confer on a select body of men a monopoly of the transit of commerce of the two hemispheres across the isthmus of Panama.''[32] And Mr. Cameron (Pa.) was utterly opposed to connecting the treasury with individual interests; he thought Congress ought to endeavor to ''*induce competition*'' instead of conferring exclusive privileges. Finally Mr. Benton himself, who was the staunch supporter of the bill, said he felt the argument against monopolies—all monopolies—as strongly as any one, arguing, however, that the extraordinary character of the work justified this grant on the ground of expediency.[33]

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[28] *Rep. of Com., 1848-49,* No. 26.

[29] The China trade; whale fisheries; trade with non-United States Pacific Coast; U. S. Pacific territories.

[30] *Cong. Globe, 1848-49,* XX, 40.

After long debate, Mr. Douglas (Ill.) introduced an amendment as a substitute for the bill. He proposed to reduce the grant to $250,000 a year as originally suggested by the committee, and to make the contract binding upon the government for ten years only. His substitute further proposed certain restrictions on the charges to be made on American traffic.[34] Clearly Mr. Johnson's objections and this amendment evince a tendency to regulate the rates to be charged upon the proposed railway. This fact is of interest in connection with the point made in the chapters on ''The Railway and Government'' and ''The Mail Service and Aid to Railways,'' that aid granted to railways tended to cause regulation of those railways.

The debate was continued on Mr. Douglas' substitute,[35] and considerable opposition to the Panama route as compared with the Tehuantepec and Nicaraguan routes was developed, its unhealthfulness and proximity to English fortifications being alleged. The end of the matter was that the bill was laid on the table and nothing done to aid Messrs. Aspinwall, Stephens and Chauncey at this session of Congress.[36]

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[31] *Ibid.*, p. 50.
[32] *Ibid.*, p. 59.
[33] *Ibid.*, p. 49.
[34] *Ibid.*, p. 382.
[35] *Ibid.*, p. 398 ff.

At the following session another memorial was presented, stating the heavy expenditures undergone, explaining the defeat of the preceding bill, and attempting to dispel a prevailing "impression" that a ship canal would best serve the commercial interests of the United States and of the world. The memorialists had been incorporated by the state of New York under the legal name of "The Panama Railroad Company" with a capital stock fixed at $5,000,000. They prayed for an immediate, definite engagement that the road when completed should be employed, "as necessarily it must be," in the public service, at a fair rate—the national importance of the work and the risk undergone in its execution being considered.[37]

Without pursuing the course of the Panama Company beyond the limits of of our period, it will be sufficient to observe here that in 1855 the railroad was at length constructed and without direct government aid.

P. A. Hargous' Petitions for a Railway at Tehuantepec

Less than two months after the Pacific Mail Company's first petition for a Panama railway, one was presented in the Senate with reference to a railway across the isthmus of Tehuantepec.[38] The Mexican government had turned over to P. A. Hargous and others the privileges formerly extended to Don Jose de Garay,[39] securing to them for fifty years the exclusive right to open communication across the isthmus, and exempting them from imposts or forced loans and their passengers from transit taxes. The route from the mouth of the Coatzacoalcos was 135 miles on a straight line, 30 miles of which were to lie on the navigable waters of that river. By this route the distance from the mouth of the Mississippi to San Francisco would be 3,294 miles, whereas to go by Panama would make a journey of 5,000 miles. The climate, moreover, was favorable, materials were abundant, and the native labor force adequate and docile. Hargous merely asked that Congress suspend judgment until the relative merits of the route be fully examined. This memorial no doubt helped in bringing about the defeat of Aspinwall's, in so far as a belief in the superior merits of the Tehuantepec route was effective to that end.

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[36] *Ibid.*, p. 626. At this session a bill to make compensation for the transportation of troops and supplies for a limited time, over the isthmus of Panama, etc. was also reported in the House (*H. J.*, *1848-49*, p. 257) but nothing came of it.

[37] *Sen. Misc.*, *1849-50*, I, No. 30.

[38] *Sen. Misc.*, *1848-49*, Feb. 6, 1849, I, No. 50.

[39] Above, p. 389.

THE ROCKWELL REPORT: 1849

In 1849 Mr. Rockwell of a select committee on canals and railways between the Atlantic and Pacific submitted a voluminous report on the various routes across the isthmian region of Central America. After discussing the relative merits of canals and railways, the conclusion reached was that "between these two modes of communication there cannot be a doubt but that a railroad is most to be preferred."[40]

THE ACCESSORY TRANSIT COMPANY'S ROUTE

Soon after the treaty of 1846 with New Granda had been ratified in 1848, efforts were made to procure similar transit rights over the Nicaraguan route. The American *charge d' affairs,* Elijah Hise, negotiated a treaty according to which Nicaragua granted to the United States or a company of her citizens the exclusive right to construct a canal, railroad, or turnpike[41] in return for aid in defensive wars. This treaty was not approved of by the United States and Hise was recalled. His successor, E. G. Squier, made a treaty in behalf of Cornelius Vanderbilt and others, under the title of the American Atlantic and Pacific Ship Canal Company, for facilitating transit across the isthmus by means of a canal or railroad. This treaty, again, was not ratified. This Canal Company, through a subsidiary organization known as the Accessory Transit Company, established a communication between Grey Town and

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[40] *Rep. of Com., 1848-49,* No. 145, p. 5.

[41] In 1849 two memorials came before Congress for aid in constructing turnpike or plank roads across the isthmus. See *S. J., 1848-49,* p. 228; and *Sen. Misc., 1848-49,* No. 56.

San Juan del Sur by steamboat and stage, and this route was much travelled by emigrants between California and the East, until in 1856 the Nicaraguan government declared the company's concession forfeited for non-compliance with terms.[42] The stage route of the Accessory Transit Company appears to have been the only one feasible for wheeled vehicles at the close of our period, poling up the rivers and crossing the divide over mule paths being the usual procedure. As stated, it was not till 1855 that a railway finally spanned the isthmus and joined the oceans by a modern means of transportation.

In conclusion, two points which are perhaps not sufficiently emphasized in the preceding should be called attention to. In the first place, any isthmian railway was generally regarded even by adherents as a more or less temporary expedient. It was believed that a railway would fill a great and rather sudden need, and at the same time would stimulate commerce till a ship canal became a necessity. A canal was the ultimate goal.

In the second place, the close connection between these isthmian projects and the great movement for a railway to the Pacific which should lie within our own territory is noteworthy. A glance at the map[43] shows that the continent of North America and the Central American region were fairly barred with a series of westward extending railway projects, all having the same goal—the Pacific. Naturally the earliest developments came where there was the least resistance, and that was at the narrow isthmian region. The first Pacific railway was an isthmian railway; but before that particular project was conceived greater plans for a trans-continental railway had been evolved, and in little more than a decade later these plans were carried out. To trace the growth and consummation of this greater, trans-continental branch of the movement for railways to the Pacific is the object of the following chapters.

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[42] See *Rep. of Isth. Can. Com., 1899-1901,* pp. 46-49.

[43] See below, p. 433.

PART II.—TRANS-CONTINENTAL LINES

CHAPTER XXI

GROWTH AND ORIGIN OF THE PACIFIC RAILWAY IDEA

Forces Leading up to the Idea

Between 1840 and 1850 the movement of population affected the railway question in a two-fold manner through the remarkable growth of immigration from Europe and of emigration to the Pacific coast. In 1845 the number of immigrants was, in round numbers, 114,000; in 1847 it was nearly 235,000; in 1849 it was over 297,000. This great increase impelled westward emigration, while at the same time it resulted in an urban congestion that caused statesmen to reflect on a railway to the Pacific as a relief measure. About the year 1839 the emigration to Oregon began and missionaries and farmers succeeded the fur-traders. This emigration culminated in the treaty of 1846, by which the United States acquired undisputed possession of the Columbia river territory, but meanwhile there had been talk of war and plans for binding this far off land to ourselves had been numerous. The outbreak of war with Mexico led to the conquest of California and long before the issue was formally decided it was common to count the northern part of Mexico as our own. Later, gold was discovered, and before 1850 over 80,000 emigrants had poured into California.

The great problem lay in the necessity for an efficient means of communication. Military expediency and a demand for mail service brought this matter directly home to the government, and the likelihood of the establishment of a separate government on the other side of the Rockies made the transportation subject of great national moment. As early as 1846 a writer in the *American Railroad Journal* sums up the subject thus: "The adjustment of the Oregon question, the continued movement of emigrants toward the Western ocean, the conquest of California, and the prospect that the northern provinces of Mexico may eventually form part of the Union, lend new importance to the idea of a railroad between the Atlantic and the Pacific."[1]

Add to the preceding a strong desire to participate in the Asiatic trade, which it was thought would come with a Pacific railway, and a fairly complete outline of the forces leading to the idea is obtained.

It was most natural to turn first to isthmian projects—for these there had been a long historical development, while at the isthmus but a few miles separated the oceans—and this was done; but a strong national spirit would not be content with this. A railway national in every sense was demanded; it should proceed direct to Oregon or to California over United States territory; it should be removed from danger of being commanded by the guns of hostile fleets or fortresses. Moreover, the desire of settling and developing the lands lying west of the Mississippi river added to the strength of the movement for a trans-continental Pacific railway.

None of these facts or forces, however, would have been very immediately effective had it not been for recent developments in railroad technique. Between 1840 and 1850 much was done toward perfecting the railway and its possibilities came to be better understood. The railway net was gradually extended and consolidation began to appear. The manner in which this extension suggested a Pacific railway is well illustrated by an item in the *Journal* just quoted. The writer tells how the people of St. Louis had projected a railway to Fayette, a hundred miles west of the Mississippi, and adds, "It is thus that our Western brethren are supplying the link of that great chain of railroad communication, which before the end of this century, will probably be unbroken between the Atlantic seaboard and the farthest limits of habitations in the West. The Atlantic and Pacific Railroad will one day be the name of that splendid whole, of which the Baltimore & Ohio Railroad is now one of the parts.''[2] It is the old question of demand and supply in other terms, and between 1840 and 1850 the supply of railway transportation became adequate to at least actively suggest the filling of the demand for an efficient means of transportation to the Pacific.

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[1] Nov. 28, 1846.

The Birth of the Idea: 1835–1845

The birth of the Pacific railway idea is surrounded with obscurity. Like the invention of the locomotive, it is to be regarded as an evolution, not of a ''nation of engineers,'' but of a generation of men who dwelt in an expanding country where horizons were broad. Before the railway era there were plans—little more than dreams—of a route to the Pacific. President Jefferson had such an idea in sending out the Lewis and Clark expedition in 1804. So Senator Thomas Benton said in a speech on the Panama Railway Bill,[3] and at the same time he claimed Jefferson's mantle for his own shoulders. Benton's claim as a pathfinder for Pacific railways rests upon certain essays written by himself at St. Louis in 1819. In these essays he refers to the Lewis and Clark expedition as demonstrating the feasibility of a communication across the continent, and states: ''The rivers Columbia, Missouri, and Ohio form this line, and open a channel to Asia, short, direct, safe, cheap, and exclusively American, which invites the enterprise of American citizens, and promises to them a splendid participation in the commerce of the East.''[4] Benton would have us believe that for thirty years he pondered in silence a great plan for this channel to Asia.

When the railway came it soon began to figure in men's dreams of a road to the Pacific. It would seem that as early as 1834 Dr. Samuel Bancroft Barlow of Granville, Mass., wrote certain newspaper articles advocating a Pacific railway and proposed that the government undertake its construction.[5] There was discussion of the matter in several contemporaneous papers.

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[2] *American Railroad Journal*, Feb. 20, 1836. V: 100.

[3] *Cong. Globe, 1848–49*, XX, 398 ff.

[4] Quoted in a pamphlet entitled *Letter from Col. Benton to the people of Missouri*, Washington, D. C., Mar. 4, 1853, p. 20.

An item in the *American Railroad Journal* for 1836 concerning an ''Atlantic and Pacific Railroad'' which has just been quoted is of interest in this connection, as an early definite expression of the Pacific railway idea.

In a memorial to Congress presented in 1849, Dr. Hartwell Carver claims to have been the first to have conceived the plan for a railway to the Pacific.[6] He states that as early as 1837 he had spoken and written on the subject, and presents several sworn statements in support of his claim. Carver's project will be further discussed. His right to the distinction of being the first to formulate any definite scheme for a Pacific railway seems rather clear.

Of no little significance is a passage in a volume written by the Rev. Samuel Parker about 1835 and published in 1838. In recounting his travels as a missionary west of the Rocky Mountains, he stated: ''The passage through these mountains is in a valley, so gradual in ascent and descent, that I should not have known that we were passing them, had it not been that as we advanced the atmosphere gradually became cooler * * * . There would be no difficulty in the way of constructing a railroad from the Atlantic to the Pacific ocean; and probably the time may not be very far distant, when trips will be made across the continent, as they have been made to Niagara Falls, to see nature's wonders.''[7] Parker's words attracted considerable attention and as a practical piece of information by an actual observer doubtless gave an impetus to thoughts of a route to the western coast.

Growth of the Idea in Congress and out: 1845–1850

Thus far we have been dealing with mere dreams or ideas hardly to be called projects, though the existence of long continued isthmian schemes should be remembered. During the ten years prior to 1845 the idea of a trans-continental Pacific railway was born, from 1845 on it became firmly established and grew rapidly. The editor of the *American Railroad Journal* under date of March 6, 1845, writes, "We meet with this magnificent project in almost all our exchange papers." At the great convention held in 1845, at Memphis, Tenn., a railway across the continent was a topic of much discussion. Here Col. Gadsden advocated such a road[8] and De Bow tells of other agitation to the same effect.[9] In 1847 Professor Forshey, referring to commercial losses on the Gulf, the extent and fertility of the Mississippi valley, and the advantage of diverting the world's commerce, proposed "a great railroad from the Atlantic at Savannah and Charleston to the Pacific at Mazatlan, near the south extreme of the Gulf of California, to be constructed by private stockholders, the United States being a shareholder, for military, mail, and other national purposes."[10] Forshey's article attracted much notice, as he opposed Asa Whitney's scheme, of which more later.

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[5] For references and details see Smalley, *Hist. of the N. Pac. Ry.*, p. 51 ff., and Davis, *The Union Pac. Ry.*, pp. 14–15.

[6] Pamphlet, Washington, D. C. Jan. 1, 1849.

[7] *Jour. of an exploring tour beyond the Rocky Mts. etc.*, made in 1835–36–37, pub. at Ithaca, N. Y., 1838, p. 73.

So much for developments outside of Congress.

For a narrow congressional history a beginning might have been made with the first appearance of a Pacific railway project in Congress; and, indeed, as the first Pacific railway was to be constructed by government assistance, a general history with a practical bent might be begun with that plan which first progressed so far as to engage the attention of the national legislature. If this were done, we would begin at the point now reached and at once take up a discussion of Asa Whitney's scheme for a railway from Lake Michigan to the mouth of the Columbia as set forth in a memorial to Congress presented in 1845.[11] This was the first project to be worked out in detail and presented to Congress as a working scheme for the immediate construction of a Pacific railway. It should be observed that Whitney conceived of a railway across the continent at least as early as 1842 in connection with a trip to China, in the trade with which country he was interested; and he states that when in 1830 he traveled over the Liverpool and Manchester railroad (Eng.) he predicted the future importance of railways as a means of communication with the Pacific.[12]

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[8] *DeBow's Commercial Review*, III, 447.

[9] *Ibid.*, I, 23-24.

[10] *Ibid.*, III, 475-483.

[11] *Sen. Docs., 1844-45*, III, No. 69. Whitney's project is discussed in detail in the following chapter.

In 1846 the memorial of George Wilkes praying the adoption of measures for the construction of a national railway from the Missouri river to the Pacific ocean was presented.[13] Wilkes was the first to propose to Congress and advocate the construction of a government railway to the Pacific. At the same time eight memorials of citizens of New York were presented to the same effect as that of Wilkes,[14] and they thus seem to have been in support of the latter's petition.

Next in order came Robert Mill's memorial "respecting a new route to the Pacific ocean, with a plan for the transportation of despatches to Astoria in fifteen days."[15] Mill's principal idea concerned a telegraph line from the Rio Grande to the Gulf of California, or San Diego; but his plan also included a "permanent road way" over the same route.

At the 1851–52 session of Congress, the Senate committee on public lands referred to Mill as having examined this matter carefully and given many years to arousing public interest.[16] The report is accompanied by a memorial in which Mill mentions "advantages, commercial, political, and religious" of a communication by railway and telegraph with our Pacific coast possessions; and he presents a topographical map to show the superiority of his route over that via South Pass.

Hartwell Carver's memorial has been mentioned[17] above as containing evidence that he early entertained a project for a Pacific railway. This memorial only came before Congress in 1849, however; hence it is not until this relatively late date that Carver appears in the congressional history of railways. In February, 1849, two memorials—one by the citizens of Troy, another by those of Attica, both in New York—were presented in support of Carver's project.[18]

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[12] *Sen. Docs., 1845–46,* IV, No. 161, p. 2.

[13] *S. J., 1846–47,* p. 57.

[14] *Ibid.,* p. 58.

[15] *Sen. Misc., 1847–48,* No. 51. See map, p. 433.

[16] *Sen. Rep., 1851–52,* II, No. 344.

[17] Above, p. 403, *S. J., 1848–49,* p. 141; and again *S. J., 1849–50,* p. 110. For a discussion of Carver's project, see below, p. 422, ff.

Almost simultaneously with Carver's memorial came one from Ebenezer Allen and other citizens of Texas, praying a grant of right-of-way over the public lands for the construction of a railway from the Rio Grande to the Pacific ocean,[19] a project obviously to be associated with that of Robert Mill. This memorial was referred to the committee on public lands and ordered printed, but no further action appears. And another plan for the development of the southern route was that of Dennis Keenan, who, in 1849, petitioned Congress for a grant of land and the right-of-way for a railway and telegraph line from Point Isabel, on the Gulf of Mexico, to the Pacific ocean.[20]

The Idea Becomes Generally Accepted: 1850

We have seen when the idea of a trans-continental railway, was born, and when and how it grew. Our conclusion is that by 1850 it was firmly established. Looking back at the movement, both in Congress and out, it is clear that the construction of a railway to some point on the Pacific coast was generally accepted as a work of the near future by the close of the first half of the nineteenth century. The growth of the country demanded it, and Congress had been besieged by many memorials for many projects. In the debates over the various plans the question had come to be, not, is a railway to the Pacific feasible, but, what means for constructing such a railway shall be adopted and what route pursued. In 1846 a committee on roads and canals could report that the construction of a railway of such length and situation was not to be thought of: "one thing appears to this committee as absolutely certain, and that is, that to construct a railroad of near 3,000 miles in length, across an uninhabited country, and passing over mountains the lowest pass through which is at an elevation of 7,500 feet above the level of the sea, is a project too gigantic, and, at least for the present, entirely impracticable. A road of such length and through such a country, has never been attempted in any age, or in any nation, known to history.''[21] It was further argued that the completion of an isthmian road might any day deprive a trans-continental line of its utility.

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[18] *S. J., 1848-49*, pp. 198, 258.

[19] *Ibid.*, p. 146.

[20] *S. J., 1848-49*, p. 232. Point Isabel is near the mouth of the Rio Grande, (see map)

The report of another committee on roads and canals made some five years later tells another story: it favors Whitney's project and refers to favorable committee reports and the action of the legislatures of some eighteen states in its favor. Public meetings throughout the country had enthusiastically supported it, and from the frequent expressions of the press the committee judged that the opinion of the country was almost unanimously concentrated on this plan. Accordingly the conclusion was highly favorable.[22]

Whatever might be said about any particular project, it is certain that the close of our period marks the assurance of a trans-continental Pacific railway.

Asiatic Trade and Pacific Railways

The importance of the Pacific trade, and especially that with China, as a force working for the construction of a trans-continental railway is difficult to realize. The article, speech, or memorial that did not refer to this subject when mentioning a possible Pacific railway was the exception. It was the burden of Benton's essay of 1819, ''a splendid participation in the commerce of the East'' being his goal. It was Asa Whitney's idea that his railway ''would give us the entire control of the commerce of Europe with all Asia, and increase our own far beyond the power of the imagination to estimate.'' At the Memphis convention it was urged that ''the vast trade of the Pacific would flow through the California terminus of the road.''[23] It was quite common in memorials and speeches pro and con to present tables of distances by the various routes under consideration from London, New York, Charleston, and other points to Canton and Shanghai, the object, of course, being to prove a saving in distance and time. The United States was to profit not only by direct trade with the Orient, but indirectly also by her position on the new route thence to Europe.

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[21] *Rep. of Com., 1845-46,* IV, No. 773. Whitney's project was under consideration, but the reasoning here was of general application.

[22] *Sen. Rep., 1849-50,* No. 194. Other early reports were less opposed and later ones less favorable than those cited, but this has been considered and the comparison adopted is valid evidence.

[23] De Bow, I: 23-24.

One of the most striking of all the writings on this subject is a reference to the Orient made by Lieutenant M. F. Maury in a letter written in 1848 to Mr. T. Butler King, Chairman of the committee of Naval Affairs. He states, ''it is difficult to overrate the value and importance to the Republic of a safe and ready means of communication through California with those people. * * * The Ilander (Islander) will cease to go naked, the Chinaman will give up his chop-sticks, and the Asiatic Russian his train oil, the moment that they shall find that they can exchange the productions of their climate and labor for that which is more pleasing to the taste or fancy.''[24] To us this sounds extremely naive, but it was taken with much seriousness in those days.

Without further detail, it may be concluded that the commerce of the Far East furnished one of the strong incentives. It almost seems that men still had dreams of a golden Cathay, and some of these are comparable to the visions of the fifteenth century Europeans who sought a Northwest Passage. Others, however, had more sober aims, and Whitney's project was based on a practical first-hand knowledge of China and the Asiatic trade.

The whale fisheries of the Pacific, too, were no dream, and products of this industry formed a part of that ''commerce of the Pacific'' so frequently referred to in connection with isthmian and trans-continental railway projects.

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[24] Appended to a pamphlet entitled, *Circular to the Citizens of the U. S.*, p. 22.

CHAPTER XXII

PRIVATE PROJECTS

The various projects for a trans-continental Pacific railway, whether brought before Congress or not, group themselves into two classes: one class of projectors desired the aid of Congress in constructing a road which was to be of a more or less private character; another class—one that became prominent just before 1850—would have had Congress itself prosecute the work directly or indirectly and make a national road. This chapter will discuss the former class, and take up in some detail the more important projects for a private railway to the Pacific which came before Congress down to 1850.

ASA WHITNEY'S PLAN

Earliest and most important of these was Asa Whitney's project for a railway from Lake Michigan to the Pacific ocean, which he presented to Congress, January 28, 1845.[1] In this memorial he referred to a chain of transportation facilities that was being extended from the east coast to the southern shore of Lake Michigan and argued that to push a railway on westward from this point would "produce commercial, political, and material benefits, which must be seen and felt through all our vast Confederacy," while, "to the interior of our vast and widely spread country it would be as the heart is to the human body." Long study of the subject had led him to believe that the route was practicable.

The rapid settlement of public land in Wisconsin caused him to transfer his eastern terminal from Lake Michigan to Prairie du Chien, on the Mississippi River, and, later, the development of keen sectional rivalry led him to broadly propose a road from some point on the Mississippi to some suitable harbor on the Pacific. In a circular letter, dated at Washington, 1849, Whitney stated that Mr. Foote would offer to amend his plan so as to construct a branch to San Diego; while the accompanying maps will indicate how he was induced to consider "Southern" and "St. Louis" routes in addition to the original northern route.*

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[1] *Sen. Docs., 1844-45,* III, No. 69.

Whitney always favored a railway over a route similar to that originally proposed, however, for here sufficient public lands were available, abundant timber and food supplies were at hand, and access, by way of the Great Lakes, to all Atlantic cities and to the iron production of Pittsburgh was easy.[2]

At first, Whitney proposed government ownership and operation for the road, but soon conceding that such power might be exercised "as a political engine" and so endanger our institutions of government, he suggested in his second memorial that its operation be secured by a contract with himself,[3] and thereafter advocated private ownership and operation with a great many restrictions and adequate government control.

The total cost he at first estimated at $65,000,000. Later he placed the cost at $68,400,000, basing his estimate on the following items:[4]

A good road and turnouts, at $20,000 per mile..........	$40,600,000
Repairs, operating expenses, machinery, etc..............	20,000,000
Land to the amount of 78,000,000 acres at 10 cents......	7,800,000
Total	$68,400,000

To raise so great a fund it seemed that the government must aid, and so Congress was asked to grant a strip of land 60 miles wide, extending 30 miles on each side of the line, from lake to ocean, making a total of some 77,952,000 acres, according to Whitney's estimate. These lands were to be held and set apart expressly to furnish, by their sale and settlement, means for constructing the road. Whitney was to survey and construct the first ten miles of railway at his own expense; then, if the work was deemed satisfactory, he would at once receive one-half of the reserved lands adjacent to the ten miles of completed road—or a strip five miles wide and sixty miles long with which to reimburse himself and begin the next ten miles. The other one-half was to be held by the government. This process was to be continued until eight hundred miles should be covered, at which point he considered that the land became poor and of too little value to defray cost of construction. Then the half of the lands which had been held by the government as the road was extended by ten mile increments over the good lands should be sold under the direction of Congress, and the proceeds—together with any surplus left from previous sales—be applied to the construction of the road through the remaining distance to the Pacific.[5] The road and the machinery were to be held by the government as security for the completion of the line.

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* Below, p. 434.

[2] *Sen. Docs., 1845-46,* IV, No. 161, p. 4.

[3] *Ibid.,* p. 7.

[4] *Sen. Misc., 1847-48,* No. 28, and circular letter appended to *Rep. of Com., 1849-50,* No. 140.

In this third memorial, Whitney agreed that when construction was so far advanced that security could be given he would pay sixteen cents per acre for all lands set apart for the work, but he considered this more than their actual worth at the time and in 1850 a bill which supported his scheme proposed a payment of ten cents per acre.[6] In case lands within the sixty-mile strip, adjacent to the line, had already been legally entered, the bill provided that other land might be taken in its place.

A two-hundred foot right-of-way was to be given. Timber, fuel, stone, and the like might be taken free from unsold government lands.

The character of the railway to be constructed is interesting. So grand and important an undertaking must be carried through in no mean style, and it was specified in this bill of 1850 that the road should be "according to the best plan of construction of railroads in the United States at the present day, with a single track, on a gauge or width not less than six feet, and with an iron rail of not less than sixty-four (64) pounds to the yard."[7]

As already stated, Whitney desired governmental control. The time for completing the road was limited; the first one-third to be done in nine years; the second, in six years more; and the entire line completed and ready for use in twenty-five years. If Whitney should neglect to prosecute work for insufficient reasons the grant might be revoked; but, in that case, he was to possess all land along the extent of road already done.[8] Congress was to direct the method of selling lands. But, above all, the right to regulate tolls was reserved, subject only to the condition that enough should be charged to cover "repairs, operation, and necessary expenses." Indeed, the bill referred to provided that rates of toll should yield merely enough to pay expenses of maintenance and operation; but if in constructing the line an outlay in excess of receipts was incurred tolls might be raised to make good the deficit. Moreover, the transportation of the mails, troops, and munitions of war would be subject to regulation, and domestic mails would be transported free. In short, the road would be "a national road, still built and carried on purely as an individual enterprise, without any government, political, or party machinery or influence."[9]

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[5] *Sen. Misc., 1847-48,* No. 28.

[6] *Rep. of Com., 1849-50,* No. 140, p. 43, ff. sec. 2. For a criticism of this bill see below p. 418.

[7] *Rep. of Com., 1849-50.* No. 140, p. 43, sec. 4.

The rates which Whitney, in his memorials, agreed to put in force were remarkably low. The rate on general merchandise for distances of 200 miles or over was to be .5 cents per ton[10] per mile, and for distances less than 200 miles, one-half the rates charged on the principle roads in this country. Corn would be transported at 20 cents per bushel,—inasmuch as it would be exported to China in large quantities,—and flour at $1.25 a barrel. Passenger rates, too, were to be but one-half those in force on other roads. These low rates emphasize the social side of Whitney's plan, and, assuming them to be *bona fide,* increase his claim to disinterested motives.

It is interesting to observe that the proposed reductions probably give some idea as to what was believed to be the proportion of expenses to income in those days, and that Whitney thought that one-half the usual rates would cover expenses.

At this point it might well be asked, what gain was Whitney to realize from his project. In addition to the provision that tolls should cover costs of construction, the bill provided that a $4,000 salary for Whitney or his assigns should be included, as payment for their superintendence.[11] But more important was that part of the plan according to which Whitney would retain for himself any surplus that might remain. When completed, the road itself, the machinery, and any land or proceeds of land sales remaining above costs were to be vested in Whitney and his heirs and assigns, being liable, however, as security for payment for the lands set aside.[12] Thus, though the road was to be operated so as to yield mere wages of superintendence, if the lands bought for ten cents per acre could be sufficiently enhanced in value, a considerable profit might accrue to the projector.

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[8] *Ibid.,* sec. 18.

[9] *Sen. Misc., 1847-48,* No. 28, and for rate provisions. see also sec. 11 of the bill above cited.

[10] 2,000 pounds.

Critical Examination of Whitney's Plan

Whether regarded from the standpoint of private gain or public utility, the essence of Whitney's scheme was enhanced land values. The lands reserved by the government would be greatly increased in value by the construction of the road and his whole recompense was to come from a surplus which depended upon the profitable sale of land. Whitney himself wrote: "I base all my calculations upon the only possible means, the wilderness land, by which the work can be accomplished at all on any route, therefore, the route must be where the road can bring into life and action this *only* means;" and again, "My object has been to find a route, the means for accomplishing which should be produced by itself."[13] The plan was a product of the time and has already become familiar in the preceding chapters on land grants.[14]

Back of enhanced land values, however, there lay the scheme of colonization, and this feature was certainly a weak spot in Whitney's project. The hoped for increase in the price of land was only to be brought about by opening it to settlement and by stimulating an effective demand for it. Whitney pictured a condition in which settlers would flock to the lands along his railway, keeping pace with its progress, furnishing labor for its construction and traffic for its support. He wrote: "It would open the wilderness to the husbandman, and take the products of the soil to all the markets of the world. It would make available and bring into market lands now too remote from civilization, and add millions of wealth to the nation. The labor of the now destitute emigrant would grade the road, and purchase him a house, where comfort and plenty would surround all."[15] This picture was hardly possible of realization, and with a failure to bring about the rapid sale and settlement of his land, its value would have failed of sufficient enhancement and the whole project ended in speedy abandonment or disaster.

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[11] Sec. 11.

[12] *Rep. of Com., 1849-50,* No. 140, p. 43. sec. 10.

[13] *De Bow's Review,* IV, 166.

[14] The following from *Hunt's Merchants' Magazine,* XXIII, 124, illustrates the fundamental character of the idea: "Instead of going to the public treasury, or to Wall Street. or to London, for capital to build this road, and thus forever subjecting all transport thereon to a tax to satisfy the interest of the cost, the whole capital required on the Whitney plan, lies at this moment sleeping in the land through which the road is to pass . . ."

Whitney's great difficulty lay in formulating his plan so as to secure reasonable insurance against the risk of the undertaking and, at the same time, give to Congress adequate guaranty that the road should be completed, and operated in the interest of the public. The undertaking was one of huge risk,—it was truly unprecedented,—and Whitney naturally desired all possible safeguards against loss; in order to secure the necessary aid, the demands of Congress must be met, and for a road of such national importance these were great. Thus, on the one hand, he was accused of being a hypocritical schemer seeking private gain under the cloak of a public benefactor; and, on the other, his plan was attacked as that of an impudent fellow boldly demanding aid for a private road.

This difficulty caused his bill to be so constructed that on several points its merits rested on Whitney's sincerity and honor. For example, what was to prevent his fraudulently increasing "costs" and raising rates till a handsome profit would result? The bill purported to guarantee that the road would be completed and might be taken over by the government in case of neglect to prosecute the work; but it also provided that in such a case the amount of road completed should vest in Whitney, and what would prevent him ceasing to carry on the work as soon as it became unprofitable? Clearly, unless considerable faith were put in Whitney's integrity, and in the altruism of his motives, the scheme was open to grave objections.

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[15] *Sen. Misc., 1847-48,* No. 28.

The Plan in Congress

No important action was taken on Whitney's project until his second memorial was presented at the 1845–46 session of Congress,[16] when it came up for debate and was the subject of two long reports. The Senate committee on public lands was inclined to favor it.[17] Considering the broad commercial, industrial, and social aspects of the undertaking it concluded that it was worth a trial and that then was the time, for the fund of public lands, from which such a road *must* be constructed would be constantly diminishing. In the House the committee on roads and canals thought the project not feasible.[18] The natural obstacles, such as distance, mountains, snow, unsettled condition of the country were enlarged upon, and the possibility of the diversion of traffic by isthmian routes was mentioned. The committee was inclined to favor a water route via the Missouri and Columbia rivers, and recommended a survey. The animus of this unfavorable report no doubt came from Senator Benton, from whom the committee had sought advice.

When Mr. Breese introduced a bill to set aside a portion of the public lands to make a railway from Lake Michigan to the Pacific ocean, Benton at once began the bombastic, violent, selfish opposition to the measure with which he followed it to its failure.[19] He objected to the further reading of the bill. He would not be surprised to see persons offering to take the government off their hands. The idea was "absurd and ridiculous," nay, it was "a most impudent proposal." Several reasons might be given for this hostility. Benton sems to have been interested in an isthmian scheme. He was jealous of Whitney, and wished to secure the glory himself, for he soon came forward with a rival project,—a project which would benefit his own state in which his proposed eastern terminal should lie.

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[16] *Cong. Globe, 1845-46*, XV, 414.
[17] *Sen. Docs., 1845-46*, No. 466.
[18] *Rep. of Com., 1845-46*, No. 773,
[19] *Cong. Globe, 1845-46*, p. 1171.

When the third memorial was presented to the Senate in 1845, it was referred to the committee on public lands, which committee instead of reporting a bill in accordance, reported a joint resolution for the survey and exploration of one or more routes from the Mississippi River. Mr. Niles (Conn.), learning that the committee would not report a bill for Whitney, brought in one of his own, had it referred to a select committee of which he was a member, and naturally produced a very favorable report. Upon moving that the Senate take up this bill, Benton expressed his ''astonishment,'' vouchsafed the information that he had studied the history of California long before Whitney had thought of it, and moved to lay the motion on the table. His opposition was successful, the yeas standing 27, the nays 21.[20]

At this same session, a communication from the representatives of Missouri in Congress, in favoring a land grant to the Hannibal and St. Joseph railroad, argued for a southern route and attacked Whitney's scheme;[21] while a House select committee on a railway to Oregon favored the scheme, stating that no donation of land was involved, but a sale, and remarking that such great enterprises are always opposed at first.[22]

At the second session of the thirtieth Congress (1848–49) Mr. Niles again brought the bill to set apart and sell to Asa Whitney a portion of the public lands for a railway from Lake Michigan to the Pacific Ocean up for discussion.[23] He favored it as a means of securing our hold upon California. Objection was made—by Mr. Borland (Ark,)—that other routes should be examined first, and an amendment was offered by Mr. Foote for a more southern route to San Francisco, or even San Diego.[24] This session marks the increase of sectional feeling over the location of the proposed railway to such a pitch that we can now see that Whitney's plan was already doomed, and Whitney later strove in vain to trim the sails of his project to conflicting winds. In the House, the request of Mr. Pollock that his resolution for making a Whitney bill the special order for February 1, 1849, be considered, was refused;[25] and the Rockwell Report opposed Whitney's plan.[26] The route was too long; the land grant was too large; there was no wood, and no settlement; the Asiatic trade would not follow the road; and, finally, there was no assurance that it would be completed.

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[20] *Cong. Globe, 1847-48*, p. 1011.

[21] *Sen. Rep., 1847-48*, No. 178.

[22] *Rep. of Com., 1847-48*, III, No. 733.

[23] *Cong. Globe, 1848-49*, XX., 381.

[24] See above, p. 410.

The bill introduced at the first session of the thirty-first Congress (1849–50) was a concession to sectional interests in that it did not insist on the northern route.[27] At this session there were two long and weighty reports which favored Whitney's project; one by Mr. Robinson of the House committee on roads and canals;[28] another by Mr. Bright of the corresponding Senate committee.[29] Both reports lay especial emphasis on the fact that the public showed much favor toward Whitney and his project. The House committee prefaces its report with a reference to ''various and numerous resolutions, memorials, and petitions from state legislatures, the Chamber of Commerce of New York, large public meetings in several different cities of the Union, and different commercial firms and private citizens, in favor of the plan of Mr. Asa Whitney, of New York,'' and the Senate committee, in a similar strain, mentioned the almost unparalleled unanimity with which the public supported Whitney, saying ''Your Committee believe, from the frequent expressions of the public press and from other sources, that the opinion of the country is almost universally concentrated on this plan.''

However this may have been,[30] it is certain that *Congress* was far from unanimously concentrated on Whitney's plan. In the Senate debate arose over a resolution to print 5,000 copies of the report, which resolution was made the occasion for a discussion of the whole subject. It is significant that it was laid on the table by a vote of 83 to 51.[31]

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[25] *Cong. Globe, 1848–49,* XX., 388.

[26] See p. 398, *Rep. of Com., 1848–49,* No. 145, p. 22, ff.

[27] *Rep. of Com., 1849–50,* No. 140, p. 43.

[28] *Ibid.,* p. 1 ff. This report is a valuable source for Whitney's project. It contains Whitney's three memorials, resolutions of State Legislatures, etc., and a documentary appendix.

[29] *Sen. Rep., 1849–50.* No. 194.

[30] See below, p. 421.

In this discussion Senator Bowlin (Mo.) attacked Whitney's plan—as set forth in the bill—in a long speech, and as it is probably here that we find the best summary of those arguments which defeated the plan, it will be well to state the gist of his remarks.[32] He complained, in the first place, that the grant was too munificent; that when a state desired a donation of land she was treated more shabbily. As no particular route was specified in the bill, Whitney would have too great a latitude in locating the road, which would enable him to dictate terms to states and municipalities desirous of lying on the proposed railway and reduce them to a state of sycophancy toward "your congressionally created idol." The provision that rates might be raised to cover costs seemed to render futile the guaranty against high tolls supposed to lie in government control. Whitney's motive, he alleged, was to make money, and nothing prevented him from issuing great quantities of stock; the whole affair would become a gigantic stock-jobbing concern. Not only this, but foreigners would invest and secure control. The bill provided that when the road was constructed outside the limits of the then-existing states it should be exempt from taxation and that the exemption should continue after admitting new states along the road. Mr. Bowlin held that such a promise was beyond the power of Congress and unconstitutional as being an encroachment on state sovereignty. But most stress was put upon the objection that the plan "seemed to be formed with a peculiar view to create new franchises, preserve vested rights, and with an end to that perpetuity which was the peculiar characteristic of a private corporation." The bill would create a thing which the courts would declare a private sole corporation; it would be an irrevocable monopoly.

Finally, Bowlin argued that the grant was practically irrevocable because of the exceptions made to the section providing for a reversion to Congress in case of neglect, etc. "Congress debars itself from the power of repealing this wonderful act, except in a few specified cases of neglect or refusal to go on with the work, and then the repeal vests in Whitney and his assigns the road, as far as it had gone, the implements, and the land proportioned to the length of the road made—and to that extent it was irrepealable forever.'' ''Was any man within the sound of his voice gullible enough to suppose he (Whitney) had any idea of going on, out of the rich and partially settled lands, when he had framed in his bill a provision, that, by stopping the work it operated as a cause of forfeiture for *that to come,* but vested in him everything * * * in proportion to the distance gone?''

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[31] See *Cong. Globe, 1849-50,* XXI, Pt. I, pp. 549, 557.

[32] *Ibid.,* p. 329.

As pointed out in the critical examination of Whitney's plan, the essence of all these objections—save that of the constitutionality of exemption from taxation—was a disbelief, real or feigned, in Whitney's motives. Accordingly, a large part of a speech, made by Mr. Robinson in rebuttal to Mr. Bowlin, amounted to a defense of Whitney.[33] He maintained that Whitney was disinterested, and that he would gladly have it specifically provided that the courts should not interpret the bill as creating a perpetual corporation. He further stated that Whitney desired that the road should be owned and operated by the government, but that this was impossible, and the present plan for furnishing his own means as the work progressed was the only practicable one.

Beside this line of argument, his chief point was that Whitney did not ask for a donation, but was to pay for the land set apart for his railway. Referring to Whitney's scheme, he said: ''I have alluded to its leading feature, which is, to show that Mr. Whitney was to *pay* at least four times what these lands were worth, *without* the road before he can realize a cent; and that if he is ever indemnified, it will be the result of his own enterprise and energy in making the road.''

That the plan met with much ridicule is natural. One person asked if it could not be reasonably assumed that it would take one year to build ten miles of railway, another year to sell the lands, and three years more to collect the payment,—at which rate it would take eight hundred and fifty years to make seventeen hundred miles![34] More amusing is a proposal made by Mr. Douglas who had just received a memorial concerning aerial navigation. The memorialist was prepared to build a great balloon with which he would proceed to England and report to the British government. Said Mr. Douglas: "I hardly know to which committee I ought to move its reference * * * I am inclined to think that, as it is evidently a rival project to the one referred to the committee on roads and canals—Mr. Whitney's railroad—it ought to go to that committee, that its object may be considered."[35]

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[33] *Cong. Globe, 1849-50,* Appendix, Pt. I, p. 333.

Whitney encountered much opposition from those who were interested in other schemes, especially from capitalists engaged in exploiting isthmian routes or in speculation in soldiers' land warrants.[36] There were powerful interests connected with the Pacific Mail Company, etc., which desired no diversion of trade by a trans-continental line; and at that time, speculation in soldiers' warrants for western lands was rife in the East. The grant of so great an amount of land as Whitney's plan involved would deprive such speculators of gain. These factors are mentioned, in addition to sectional jealousy, which, after all, was the great impediment.

Whitney's Motives and Service

When it comes to a critical estimate of Whitney's motives, our conclusion must be a favorable one. The very safeguards which he desired for his own interests are evidence that he was no crack-brained enthusiast, though we may well conclude that he was far too optimistic. It must be admitted that he was a remarkably unselfish man. He gave his fortune and some of the best years of his life to advancing a project from which he expected no great direct gain. The words which he uses towards the close of his second memorial are worthy of repetition: "It will be seen that your memorialist has not prayed for any pecuniary provision for himself until after the road shall have been completed and in operation for twenty years, before which time he will, in all human probability, be past the wants of this life. His object in bringing this project before your honorable body and the people is not for gain of wealth, or power, or influence, but because he has seen, and as he thinks clearly seen, its vast and incalculable importance to us as a nation, and to mankind.''[37] Though Whitney was mobbed and ridiculed, he was very successful in winning converts to his project, and the number and character of these are strong evidence of the earnestness and sincerity of the man. Even Mr. Carver, who was a rival projector, seems to have had nothing but respect for Whitney and refers to his zeal as being worthy of the highest commendation. Further evidence to the same effect comes from Whitney's ability to rise above sectional prejudice.[38]

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[34] *Sen. Misc., 1849-50,* No. 28, Appendix F.

[35] *Cong. Globe, 1850-51,* XXIII, 132. For further discussion of Whitney see *Cong. Globe, 1851-52,* Pt. II, p. 941.

[36] *Rep. of Com., 1849-50,* No. 140, p. 10.

That Whitney considered measures calculated to insure him against loss is true; he was a man of some prudence and practical knowledge. That he sought the glory of the enterprise there is no doubt; that is fitting for a great man.

His activity was great. He traveled throughout the country advocating his project in writing and in speech. In 1848, he made a tour of the South, where, though at that time he proposed nothing but a northern route, he was successful in arousing interest and securing favorable resolutions from several state legislatures.[39] Indeed, by 1850, some eighteen different state legislatures had presented resolutions or memorials favoring Whitney's plan.[40] In summing up Whitney's service, we can do no better than to quote from the House committee on roads and canals, which found that: ''Mr. Whitney has been unremittingly engaged, at his own expense, since 1841, in collecting information on this subject, * * * and that we are indebted to him for the origination of the project, for the maturity of the first plan, for the large amount of practical information he has brought to bear upon the subject, and for the awakening of public attention to its importance.''[41]

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[37] *Sen. Docs., 1845-46,* No. 161.

[38] See *De Bow's Review,* IV, 166; and above, p. 410.

[39] *De Bow's Review,* V, 89.

[40] *Sen. Rep., 1849-50,* No. 194. For examples, see *Rep. of Com., 1849-50,* No. 140, Appendix.

[41] *Rep. of Com., 1849-50,* No. 140, p. 1.

HARTWELL CARVER'S SCHEME

Contemporaneous with Whitney's propaganda there were several minor projectors in the field. Perhaps the most noteworthy of these was Hartwell Carver, already mentioned as an early advocate of a railway to the Pacific.[42] On January 28, 1850, Mr. Dickinson presented a memorial from Carver and his associates asking an act of incorporation and the aid of government to enable them to construct a railroad from Lake Michigan to the Pacific ocean.[43] The nature of his scheme was as follows.

Three propositions were made, the difference lying in the character of aid to be granted and the relation between the government and the finished road. The railroad was to extend west from either the Mississippi or Missouri river, or from Lake Michigan, and two branches were proposed, one to San Francisco and another to the mouth of the Columbia via South Pass. According to the first proposition, the government would sell the company 8,000,000 acres of the land lying within ten miles of the road at 50 cents an acre, taking payment in the company's stock. The second proposition was that, in addition to the $4,000,000 of stock received for the land, the government should take $8,000,000 worth of stock with the idea of securing equal control of the railway. This would "do away with all fears of monopoly, which some may raise as objections against a chartered company." In the third place, Carver proposed the grant of a strip forty miles wide along the road. The government was to survey and locate the railway, give right-of-way through the public lands together with materials for construction, and whichever plan was adopted the company would have a practical monopoly of the telegraph business to the Pacific coast.

Carver argued that without a Pacific railway we could hardly expect Oregon to remain in the Union, for representatives from that region could not make the trip to Washington between sessions. He also refers to the extent and fertility of the Columbia's basin.

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[42] Above, pp. 403, 405.

[43] *S. J., 1849–50*, p. 110. Referred to com. on roads and canals, and no further action.

One of the most interesting features of Carver's scheme is the kind of railway he proposed to construct. Like Whitney's line it was to be built "on a grand and extensive scale." The rails must be such as would support the great burden of cars carrying two or three hundred tons (!) and they were to be laid eight or ten feet apart on a solid and permanent foundation. And the passengers cars, Carver wrote, would be "moving palaces, sixteen or twenty feet wide, and two hundred feet in length, containing births (!) for sleeping, kitchens for cooking, dining halls and parlors, affording to the passengers all the comforts of domestic homes, while they will be traveling fifty miles an hour in a still, quiet, and safe manner." Of course this description is but a freak yet the anticipation of sleeping, dining, and parlor cars is not without historical significance. The fact that both Whitney and Carver considered railways of broader gauge than the standard is evidence that the latter had not become firmly established.

P. P. F. De Grand and Others

Carver in his memorial complained that, while he and Asa Whitney were the only real pioneers, others had arisen as upstarts to share in their honor. The other projects which he mentions are those of George Wilkes, Aspinwall and Co., and William Bayard and Co. Wilkes desired a government road and his plan accordingly falls within the province of the next chapter; Aspinwall and Co. with their short isthmian road have already been treated; Bayard's plan, which involved the grant of a strip of land fifty miles wide, was not an original one and does not appear to have come prominently before Congress.

The project of one whom Carver does not mention seems to have been most important. At the first session of the thirty-first Congress, (1849–50), the petition of P. P. F. De Grand and others was presented.[44] The memorialists asked three things: first, a charter authorizing them to construct a railway and telegraph line from St. Louis to San Francisco; second, the right to borrow United States 6 per cent. stock to the amount not exceeding $98,000,000 for the purpose of constructing the road; third, a right-of-way and a grant of public land ten miles wide along the north side of the line. The capitalization of the company was put at $100,000,000, of which $2,000,000 must be paid in before the stock loan could be received.

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[44] *Cong. Globe, 1849-50*, XXI, Pt. I, p. 149; for details see *Sen. Misc., 1849-50*, No. 28.

De Grand's project was a purely private one. It seems to have attracted most attention in the East, and several mass meetings were held in Boston to consider it.

Proposed Extension of the Galveston and Red River Railway Company

The only private project for a railway to the Pacific which remains to be considered in a Congressional history is that of the Galveston and Red River Railway Company, for which the citizens of Texas memorialized Congress at its 1848–49 session.[45] The legislature of that state had chartered the company for constructing a railway from Galveston to the Red River, with a provision authorizing branches to any point in Texas; and the company now desired the right of constructing a continuation of a proposed branch over the public lands from the Rio Grande to the Pacific. They did not ask Congress to ''exercise any *doubtful constitutional powers,* in making any appropriations to them, or for their benefit, either in *money, land, or any other thing of value.''*

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[45] *Sen. Misc., 1848–49,* No. 33.

CHAPTER XXIII

GOVERNMENT OWNERSHIP PROPOSED

While the above-described private projects were from time to time occupying the attention of Congress the idea of government construction and ownership was not without adherents. As observed in a previous chapter,[1] in 1845 the situation with regard to a Pacific railway was much the same as existed in the case of all railways in 1825. There was urgent public need for a bond of communication between parts of the nation. The undertaking was from its novelty and hugeness calculated to appeal to men as demanding government participation. Furthermore, repugnance toward allowing such an undertaking to fall into private hands was a factor for government ownership, and there was a well-developed hostility to monopoly which operated against the various private projects. In 1850 Pacific railways were felt to have a peculiarly national importance, and in order to complete the congressional history of railways it is necessary to take account of the proposals for a government road which then came before Congress.

Indeed, at the very earliest mention of a Pacific railway, government construction was suggested, for in 1834 Dr. Barlow wrote to that effect.[2]

Wilkes Memorial for a National Railroad

On December 21, 1846, Mr. Dix (N. Y.) presented the memorial of George Wilkes concerning a Pacific railway. Wilkes prayed the adoption of measures for the construction of a national railroad from the Missouri to the Pacific and his request was supported by eight memorials from citizens of New York.[3] The memorial was referred to the committee on public lands and no report made. Wilkes advocated government enterprise because he believed that only in this way could adequate funds be obtained. With the public behind the undertaking and an official survey of the route, public lands would be so enhanced in value that capitalists would readily make investment.[4]

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[1] Chap. VII, p. 256.

[2] See above, p. 402.

Gold and Government Railways

Wilkes' scheme for a government road seems to have antedated all others which came before Congress. His proposition was made before the importance of California was generally realized,—indeed, before that importance was great. Gold had not been discovered and a growing American population on the coast was unforseen. With the discovery of gold and attending developments the Pacific railway idea was rendered less difficult; the incentive for a government road increased. We see the direct working of the gold factor in a resolution submitted by Senator Houston (Tex.) It was proposed that a special committee report upon the expediency of a railroad constructed by the government from San Francisco to the Mississippi. The committee was also to estimate what amount of revenue would be yielded by a tax of 8 per cent. on all the gold to be mined in California during ten years, and report upon the expediency of using such revenues in building the road.[5]

Again, in 1850, Wm. Archer memorialized Congress to the effect that a public ship be stationed at San Francisco "to receive and safely keep all gold, to prevent it being taken out of the United States in an uncoined state; that the gold be bought for the United States; and that the portion of its value between $17 an ounce and the real value be applied to make a railroad" from Washington to San Francisco.[6] The memorial was referred to the committee on finance. That this plan met with serious attention seems probable, for it is referred to several times and in a respectful way. No report upon the matter has been found however, and nothing came of it.

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[3] *S. J., 1846-47*, pp. 57-58.

[4] Bancroft, *Hist. of Cal.*, VII, 502. Bancroft dates Wilkes' plan from 1845.

[5] *Sen. Misc., 1848-49*, No. 12.

[6] *Cong. Globe, 1849-50*, XXI, Pt. II, p. 1097. Also *Ibid.*, pp. 1124, 1839.

BENTON'S NATIONAL CENTRAL HIGHWAY

Most prominent among advocates of a national railway to the Pacific was Col. Benton of Missouri.[7] Benton came from a section which expected great benefit from such a road; he represented that queer mixture of individualistic and socialistic tendencies which characterized Western nationalism; he was jealous of Asa Whitney's fame. With these factors at work he attacked all private schemes and fought for a national undertaking. Of Whitney he said, "I look upon all such applicants as jobbers, and repudiate them. * * * I go for a national highway, no stock-jobbing."[8]

He proposed that a strip of land a mile wide and extending from the western border of Missouri to the Pacific be reserved for the immediate construction of a single-track railway and a common road. Later all varieties of roads might be added—plank and macadamized roads, and even a railway operated by magnetic power. In the bill introduced at this time[9] 75 per cent. of the proceeds of public land sales in Oregon and California and 50 per cent. of the sales of other public lands in the United States were to be set apart as a fund for constructing "a central national road," which was to extend from St. Louis to San Francisco with a branch to the Columbia river. The proposed reservation for the branch was 1,000 feet wide. One hundred thousand dollars was to be appropriated for treating with Indian tribes, and military stations were to be established along the line. The opening of the route was to be the occasion for grants of land to settlers. It is significant that Benton's nationalism did not extend to government operation, for the bill provided that sections of the road when completed were to be let to individuals or companies under a stipulation for reasonable rates. In modern parlance government ownership with private operation was the program.

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[7] See above, p. 402.

[8] *Cong. Globe, 1848-49*, XX, 472.

[9] *Ibid.*

Within two years Benton greatly enlarged the scope of his project by adding a branch to Santa Fe and increasing the land reservation to 100 miles for the main line (estimated 1,600 miles long) and 50 miles for each branch. More ample provision for funds was also made. These were to include all income from customs and sales of public lands in California, Oregon, New Mexico, and Utah, over and above expenditures in those regions; and for immediate use a loan based upon the hypothecation of this income was proposed.[10]

As usual Senator Benton was supported by colleagues and constituency. Mr. Bowlin presented a long set of resolutions in favor of a national way;[11] and, more important, the legislature of Missouri memorialized Congress in behalf of a "Central Pacific Railroad." "It is fair to the character of our government, to the practical usefulness of our institutions, and to the wants of our people, that such a work should be carried into effect at the earliest practicable period. * * * Its objects are national, and its execution should be exclusively national, and we do not hesitate to recommend and urge upon your honorable body such legislation, by appropriations of land and money, as may be necessary to carry it into operation."[12] That this memorial indicated some considerable public sentiment is evidenced by the fact that in 1850 a memorial by the national railroad convention at St. Louis (1849) was presented "praying the adoption of measures for constructing a national railroad."[13]

Benton's plan embodied many different means of transportation and question arises as to the reason for this. For one thing Benton seems to have yearned for "a plain old English road." He and his constitutents had been accustomed to such all their lives, and on them a farmer could ride or drive his cattle free of charge with "none to run over him, or make him jump out of the way under the penalty of being crushed." How much of this sentiment is to be attributed to sincere conservatism, and how much to demagoguery cannot be said. In either case it is significant of time and place.

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[10] *Cong. Globe, 1850-51,* XXIII, 56.

[11] *Cong. Globe, 1849-50,* XXI, Pt. I, p. 413.

[12] *Sen. Misc., 1849-50,* No. 25.

[13] *S. J., 1849-50,* p. 47.

In the second place there was the idea of fostering competition. Tracks were wanted for many railways and roads, for there could be no monopoly on such a mighty line of travel. Even in the case of telegraph communication two margins were to have been reserved for "independent and rival telegraph lines."[14]

Walker's Incipient Measures

In March, 1850, Senator Walker obtained leave to bring in a bill (Sen. No. 158) "to provide the incipient measures necessary for the construction of a railroad from the Mississippi river to the Pacific ocean."[15] He dwelt upon the great obstacles to be encountered in building a railway over such regions and argued that adequate examination and survey be made first. The scheme involved free grants of land to settlers along the road as being the only means of attracting a supporting population and to this end government construction was necessary.[16]

Such, in brief, is the history of those projects for a government Pacific railway which came before Congress down to 1850. Little is to be gleaned from it save that Congress not only did not take up such projects, but did not consider them seriously enough to devote much discussion to them. Asa Whitney's conclusion that a government railway was not desirable in connection with our political institutions was the prevailing belief.

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[14] For this and preceding quotation see *Letter from Col. Benton to the People of Missouri,* Pamphlet, Washington, D. C., Mar. 4, 1853. p. 95.

[15] *S. J., 1849-50,* p, 214.

[16] *Cong. Globe, 1849-50,* XXI, Pt. I, 539.

BIBLIOGRAPHICAL NOTE

Though the basis of the present work lies entirely in Congressional material, certain other works have been of service and frequent reference to them has been made in foot notes. Most helpful have been *Niles' Register, Hunt's Merchants' Magazine,* and *De Bow's Review,* respectively. To follow contemporaneous events in this way gives perspective, serves in some cases as a check, and often supplements Congressional material.

Next should be mentioned a group of books and monographs dealing with the history of railways and the development of railway technics, etc.:—

Armroyd, Geo., *Internal Navigation of the United States* (Phil., 1830)

Brown, W. H., *Hist. of the First Locomotive in America.*

Earle, Thos., *Treatise on Railroads.* (1830)

Meyer, B. H., *History of Early Railroad Legislation in Wisconsin.*

Mills, Robt, *A Treatise on Inland Navigation.* (Balt. 1820)

Poor's Manual, 1868–69.

Ringwalt, J. L. *Development of Transportation Systems in the United States.*

Stevens, John, *Documents tending to prove the superior advantages of Railroads.* (N. Y., 1812)

Stimson, A. L., *History of the Express Cos.* (N. Y. 1859)

Strickland, Wm., *Report on canals, railways, roads, etc.* (Phil., 1826)

Tanner, H. S., *Canals and Railroads of the United States.* (1840)

Thurston, R. H., *A History of the Growth of the Steam Engine.*

Watkins, J. E., *Development of the American Rail and Track.*

Wood's *Treatise* on railways (Ed. 1831) was quoted as authority in Congressional discussion. Two monographs

which appear in the *John Hopkins University Studies* are of much value in this connection: one on the *Economic History of the Baltimore and Ohio Railroad* by Reizenstein, to be found in Vol. XV. of the *Studies;* the other on the *Early Development of the Chesapeake and Ohio Canal Project,* in Vol. XVII.

Much might be said concerning the Congressional material. In the first place, while the aim has been to make the present monograph as exhaustive as is reasonably possible, it can not be confidently said just what degree of completeness has been attained. Indices are necessarily depended on in handling so great a mass of material and if the index is incomplete or imperfect such is likely to be the case with the work. Much care has been taken, however, to run down any reference or implication which hints at undiscovered material; and in some cases material has been discovered through secondary works. In a few instances, chance has been of service.

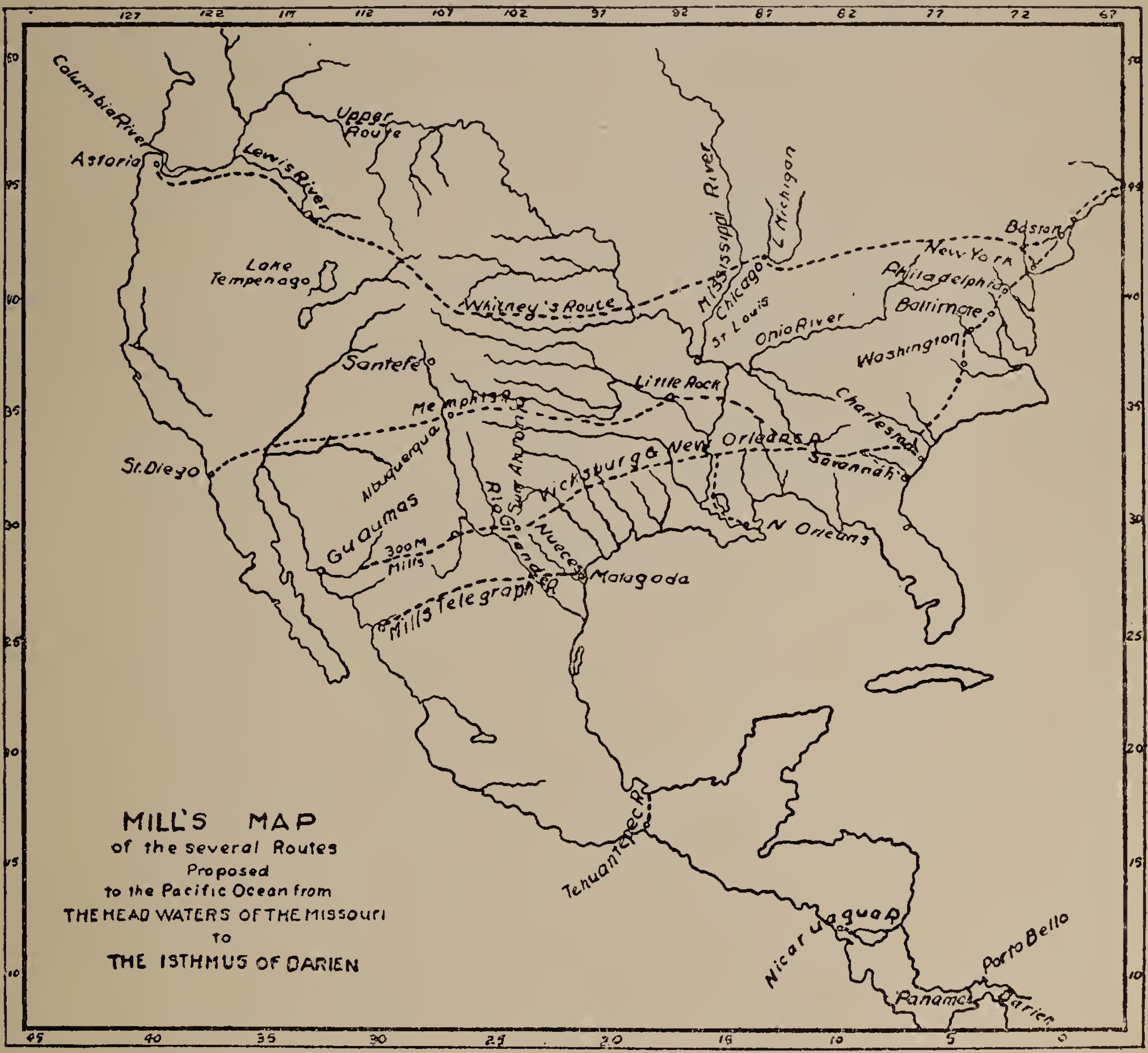
The method of working through the sources has been as follows. The *House* and *Senate Journals* are gone through by index, the headings, Roads, Railways, Internal Improvements, Public Lands, Pacific, Whitney, Baltimore and Ohio, etc., etc., being scrutinized. In one case material on Pacific railways was found by looking up ''Oregon'' which was the only place it appeared. In the *Journals* one finds an outline of the course of the bill, memorial, or resolution, or the vote upon it if one is taken. In most cases little but the general title of the measure appears. Next the *Debates of Congress, Congressional Globe,* or *Congressional Record* are consulted and here in many cases the debates upon the various proposals are found. Though not so accurate as the *Journals* the various records are much more satisfactory.

Meanwhile various resolutions and memorials have been referred to appropriate (?) committees—on Roads and Canals,—Public Lands etc.,—and the reports of committees must be consulted. These may be found in *Executive Documents, Senate Documents, Senate Reports, Reports of Committees,* or *Senate* or *House Miscellanies.* Perhaps these reports are the most valuable source for such a work as the present. Here are found maps, statistics, and expert testimony (perhaps not unbiased).

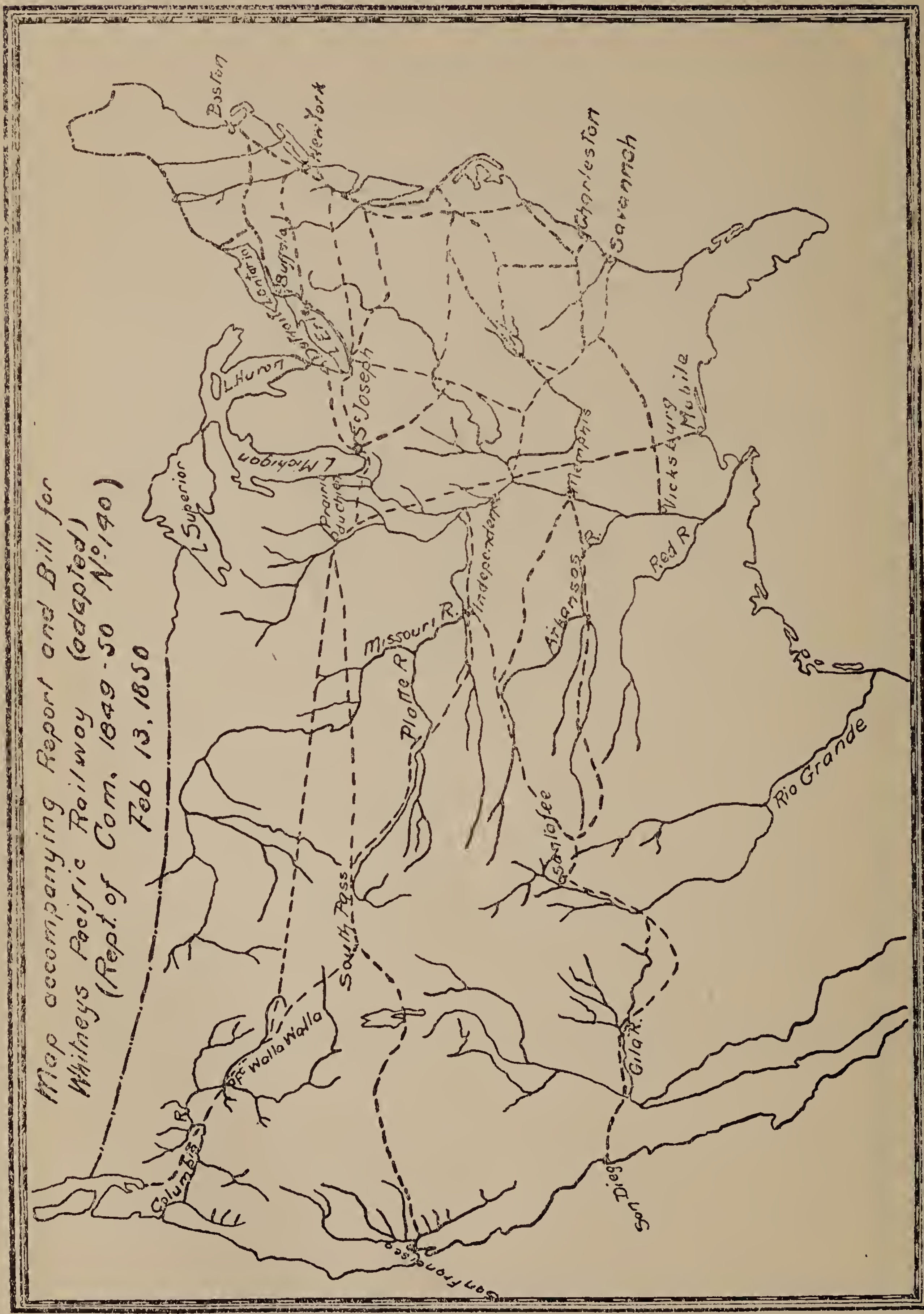
For instance, a great deal of valuable information concerning early railroad construction, rates, etc., is to be found in the long *Executive Documents of 1831–32,* Nos. 18 and 101. No. 145 of the *Reports of Committees for 1848–49* (the Rockwell Report) forms a large volume and is an important source for the history of Pacific railways.

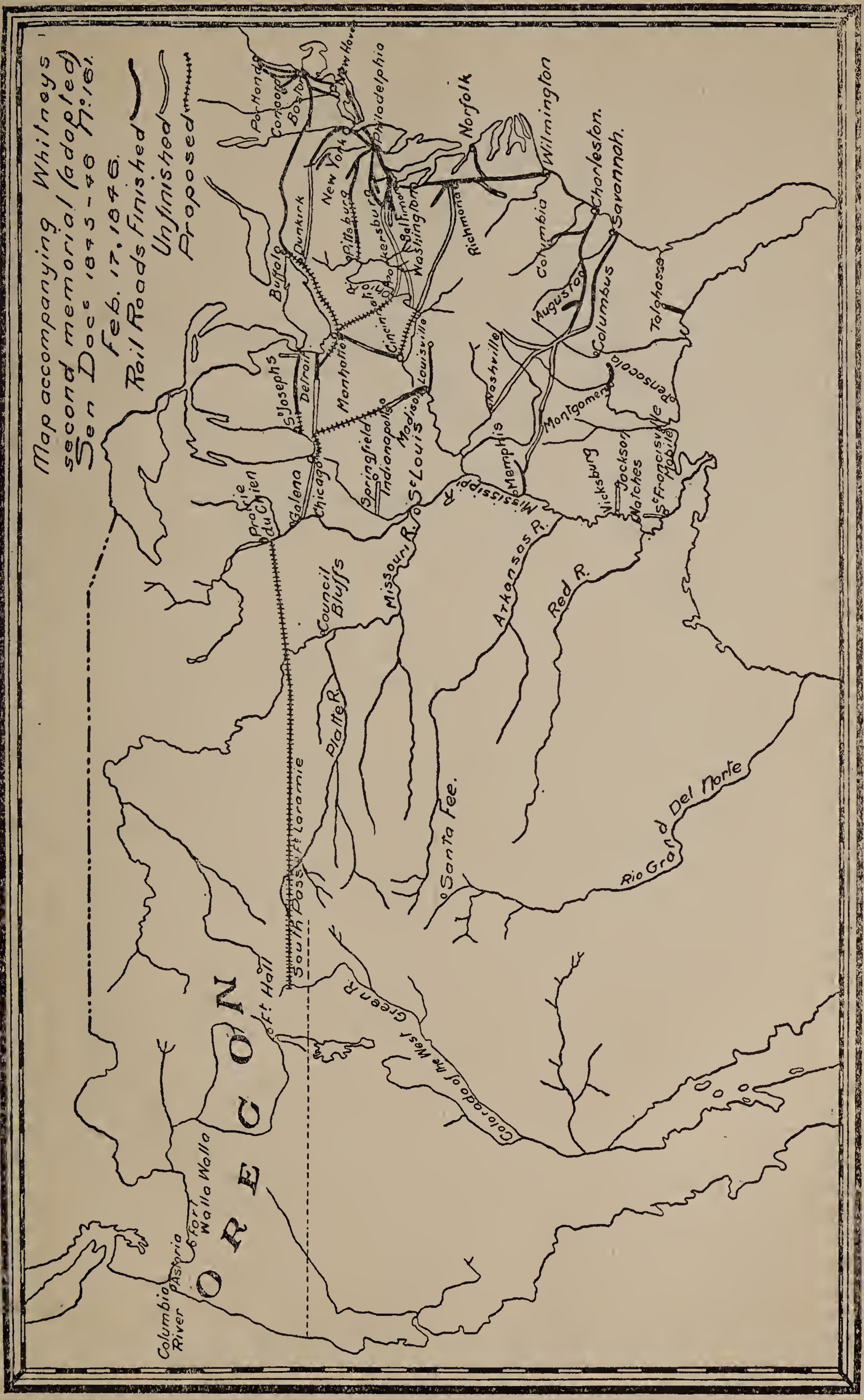
Certain congressional documents of a date later than 1850 are valuable as containing the history of earlier events. Thus the history of the railway mail service is fully treated in *Senate Executive Documents,* 48 Congress, 2d. session, No. 40; and the *Report of the Isthmian Canal Commission,* 1899–1901, Washington, D. C., 1901 (*H. R. 15*) gives much information concerning isthmian railways.

Finally, the acts of Congress have been consulted not only with the idea of securing their contents where desirable, but also of making sure that, at least, no measure that actually passed Congress has escaped.



MILL'S MAP
of the several Routes
Proposed
to the Pacific Ocean from
THE HEAD WATERS OF THE MISSOURI
to
THE ISTHMUS OF DARIEN


Map accompanying Report and Bill for
Whitneys Pacific Railway (adapted)
(Rept. of Com. 1849-50 No. 190)
Feb 13, 1850
Boston
New York
Ontario
Buffalo
Erie
Detroit
L. Huron
St Joseph
L. Michigan
Superior
Prairie du Chien
Charleston
Savannah
Mobile
Vicksburg
Memphis
Red R.
Arkansas R.
Independence
Missouri R.
Platte R.
South Pass
Santa Fee
Rio Grande
Gila R.
San Diego
San Francisco
Ft. Walla Walla
Columbia R.


Map accompanying Whitneys
second memorial (adopted)
Sen Docs 1845-46 N:161.
Feb. 17, 1846.
Rail Roads Finished
Unfinished
Proposed
Portland
Concord
Boston
New Haven
Philadelphia
New York
Dunkirk
Buffalo
Pittsburg
Parkersburg
Baltimore
Washington
Norfolk
Richmond
Wilmington
Columbia
Charleston.
Savannah.
Augusta
Columbus
Tallahasse
Pensacola
Montgomery
Mobile
St Francisville
Natches
Jackson
Vicksburg
Memphis
Nashville
Louisville
Cincinnati
Manhattan
Detroit
St Josephs
Chicago
Galena
Prairie du Chien
Springfield
Indianapolis
Madison
St Louis
Mississippi R.
Missouri R.
Council Bluffs
Platte R.
Arkansas R.
Red R.
Santa Fee.
Rio Grand Del Norte
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